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THE

CINCINNATI

MEDICAL ADVANCE

VOLUME I.



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William C. B. Com.

Subscriptions to the Advance should be sent to Dr. T. C. Bradford, P. O. Drawer 1284, Cincinnati, Ohio.—\$3.00 a year, in advance.

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SALUTATORY.

DEAR READER.—This will doubtless take you unawares. You may consider our intrusion into your sanctum a piece of ill timed impudence. Well, we don't deny that we are here without warning, and that we intend to stay as long as we can be of any service to you.

What is our excuse? We make none. We are a part of the unaccountable phenomena of the universe. You never begged any body's pardon for being born, and you never felt ashamed of trying to live. You have made an honorable history in the world; why shouldn't we? We have human hopes, human ambition, and we mean to put forth superhuman efforts to accomplish our mission. Give us therefore a welcome hand, a cheerful word, and your immediate subscription.

I-1-1

WE WANT REPORTS from all the Medical Colleges in the country—of their medical and surgical clinics. We hereby offer to pay for such reports, if we cannot otherwise obtain them. Our readers desire to know what is being done at these medical centres.

If Professors have new ideas to advance; if anomalous cases of disease present themselves; if new and successful modes of treatment are instituted, we shall be glad to give them publicity in our columns. The amount of material of this sort that is going to waste through negligence is astonishingly large. Facts of the highest value may be found almost daily in our college clinics. There are thousands of men who need to know these facts. They cannot attend upon clinics and lectures, but they will gladly accept them in the columns of this, or any other medical journal.

Stepping into one of our book stores the other day to purchase a work just out of press, the proprietor uttered a statement that fairly surprised us; Said he: "You would be amazed at the number of scientific works we are now selling. Years ago our leading trade was in religious books; then came our storytellers, Scott, Dickens, Cooper; and we sold fiction. To-day our leading sale is in the writings of scientists. Huxley, Tyndal, Spencer, Darwin, have revolutionized public taste, and now we order hundreds of copies of such works, when, a while ago, we dared venture only on a half-dozen. The work you have just bought is hardly dry from the press and binders. The invoice came only last night, and already we have sold them nearly all out." We replied that the book in question was new to us, having never seen or heard of it until we picked it from the counter. "Well," said he "that is what strikes me as strange. This sort of book sells without the trouble of advertising. Our customers seem to be lying in wait, and snap them up as soon as they come."

This disclosure has a deep significance. It speaks volumes for the growing intelligence and better taste of the public mind. And this query arose in our subsequent thinking. How many of those eager readers are members of the medical profession? Do our busy doctors find money to buy, or time to read, these new books? And if not, can they afford the loss? Will not the

better class of people outgrow the profession and leave them in a condition of ignorance that will win neither respect nor patronage? Our notion is, that, in this matter, the doctors will not generally be found wanting.

DR. C. J. HEMPEL, now living in honored old age, after a long life of usefulness that will be fully appreciated only in after years, writes to the Observer, among several good things, this curious statement: that the Cleveland School has had its useful. ness impaired, by the fact that one of its faculty has espoused Darwinism. A few years hence this statement will appear to all the world as strangely as it now does to many of the intelligent thinking men of the profession. In the first place, no member of that faculty, past or present, has publicly espoused any such doctrine. And, in the second place, Mr. Darwin's theory regarding not the fact, but the manner of evolution, though not proven, or finally accepted, commands the respectful attention of all scientists. Unmistakeably, it is a revolutionary doctrine, and greatly disturbs many well settled ideas in science, history, theology, and philosophy. This fact makes it distasteful to many. A man who has lived many years in peaceful possession of a certain well defined belief, will certainly protest against the upturning of the foundations upon which that belief rests. Young men. however, whose minds are in the formative stage, will more readily attach themselves to new ideas; and we suspect that Father Hempel must leave to younger minds than his, the work of grappling with these new questions, and of preparing them for acceptance or rejection by the coming age. He runs before he is sent, who attempts to dogmatically settle what can only be determined by the research and thought of the future.

"I'M Regiment 76th's Dog; whose dog are you?" No body's, Thank Heaven! We are free born, of lawful age and good report. We have attained our majority in drawing our first breath. No body owns or controls us. We hold a carte blanche with all the world before us. We are after the truth, both to find and disseminate it. If we hold any opinions, they are our own. No supervision or dictation holds us in awe. We believe in liberty of speech and freedom of opinion, and our col-

umns will ever be open to all who desire to use them in the furtherance of truth. Ours is a medical journal devoted to medical science, and we invite all to a full, free, discussion of all the questions that pertain to that science. Kind reader, this task invites your co-operation. Will you let the world know what you are thinking about?

It is not our intention to make specific pledges for the future of the ADVANCE. Our readers must take us on trust. We can scarcely answer to ourselves what we shall make of the journal. Our aim certainly will be placed high, and the end must be finally measured by our ability to conduct and maintain a publication suited to the tastes and wants of our readers.— Briefly, however, we desire to say this: THE CINCINNATI MEDICAL ADVANCE will seek to occupy new grounds. We shall stand upon a point midway between a strictly medical, and a scientific journal. Of the former class we have already a large number. In our own, and other schools of medicine, we have now a full supply of monthly and quarterly periodicals devoted to medical science alone. Of scientific journals we have a few, and they are ably and successfully conducted. The Pop-ULAR SCIENCE MONTHLY, published by D. Appleton & Co., and edited by Prof. Youmans, is worthy the wide popularity it has achieved in the first year of its existence. Its success shows a growing taste for scientific investigation. To meet this taste, so strongly marked in the public mind, we shall endeavour to shape the course of the ADVANCE. Our medical basis is unmistakeably homœopathic. We believe the hope of this school in the future, lies in its alliance with modern science.

We are not discouraged that some of these questions have met with a rude rebuff. If the second sober thoughts of our professional leaders do not induce them to accept the teachings of modern science and enlightened philosophy, we shall have to change leaders, that is all. Homeopathy may as well keep up with the times, or else retire from the contest. Medicine is a science, or it is nothing. Pathology and Therapeutics are parts of the one great system of Nature, and as such, conforms to law and order. And as such, they stand related in some way with every other department of science. Be it ours then to trace out this mutual interdependence.

THE Twenty-sixth Annual Session of the American Institute of Homœopathy will be held next June, in Cleveland. It is not too soon for every one concerned to begin at once to make all need ful preparations. Shall we have some papers read and discussed then, which will reflect honor upon our School? The Secretary and Chairmen of the Committees should sound the notes of warning.

WE wish some one member of each State and local society would consider himself a Committee to furnish us with professional news therefrom.

HINTS ON HOUSE BUILDING.

THE physician must ever be on the alert, watching and advising people upon all points that affect good health. He may not presume to be an architect, but his knowledge of the laws of life may be made serviceable in directing those who plan and build our houses. And since these laws are often set at defiance in the construction of our dwellings, the physician should interpose and enlighten those who are ignorant of, or careless in such matters. It should be always borne in mind, that the location, equally with the construction, is a matter of vital importance.

Says a late number of The Country Gentleman:

"First, in selecting the site for a house, how often do we notice a low spot chosen, surrounded by swampy meadows, where the cellar is always damp, and often full of water, instead of a slight eminence, with its commanding prospect and purer atmosphere; and with this error committed, there is no means of atoning for it. But, with a house well placed, the after arrangement of the grounds will be suggested from time to time to a person who is willing to bestow a little thought on the matter.

"On most farms a great variety of surface is presented, and on most of them, a site for a house may be selected which possesses many advantages. If possible, choose a site with a southerly aspect, on a slight eminence, protected on the north by a still higher land or belt of trees. Now, if we have a gentle slope in front, let it be permanently seeded, and with no division fences or cross-roads to lessen the apparent extent or mar the surface, you have a lawn of fine appearance, as useful to you as ever, and also pleasing to the eye."

The American Builder, in discussing this subject, insists upon plenty of windows, and adds:

"And then, O housewife, keep your blinds open during the day and your curtains drawn aside. If you let the sun in freely, it may 'fade your carpets,' but if you do not it will be sure to cause ill-health to the mothers and children. The sun is a good physician. He has never had due credit for his curative qualities—for the bright eyes and rosy cheeks that come from his healing bath. Do you know how puny is the growth of the potato-vine along the darkened cellar wall? Such is the health of human beings living where the sun is intercepted by the window's drapery. So dark wall-paper is not only gloomy, but it is physically unwholesome. Let in the sun, for with it comes cheerfulness and strength. A dark room is an enemy of good health, good temper, and good morals."

Such sound advice should be heeded, and, if already neglected, the physician might properly suggest the putting in of more windows, or that those made should be kept more widely open; or, that unhealthy and damp places should be drained, or filled up, or that the house should be taken up bodily and transplanted to a more healthy location. Attention to these matters might be quite as useful as studying pathology, or learning symptomatology, or acquiring the art of prescribing the indicated remedy.

"PURE HOMŒOPATHY."

FIDELITY to one's own convictions is not always allegiance to truth. A subject may be viewed from so many sides by minds of such varied grasp and breadth, that it occurs but seldom, if ever, that any one mind can comprehend fully the most simple proposition in all its aspects and bearings.

To believe that we have so comprehended any subject that it can reveal to our minds nothing more, that no new relation can be discovered, would argue no less the narrowness of the mind so conceiving, than the subject so apprehended. If this be true of the simplest proposition, how much more significant does it become in relation to complex propositions. To believe that we have so exhausted a subject that we ourselves can not possibly increase our knowledge concerning it, is folly; but to include in that belief the impossibility of any thing being added by another, is an arrogant assumption, born only of ignorance, concerning both the processes and the fountains of knowledge.

If each individual were thus to place a patent upon his investigations, and declare his own conclusions final, and the subject so investigated henceforth sacred, there would be an end to all advancement in human knowledge.

In the enthusiasm of victory over the secrets of nature, the human mind is prone to just this conceit; but only the ignorant wrap themselves in this conceit as a mantle, content to repose on the achievement. When Newton obtained a glimpse of the grand order of the universe, he was not so much overwhelmed by the fact that his mind had comprehended more than another's, as by the grand universal order which began to dawn on his mind. "He likened himself to a child picking up shells on the shore of the great ocean of truth - a comparison which will be evidence to all time, at once of his true philosophy, and of his pro-Systems of religion, of philosophy, and of found humility." medicine, find their adherents in men who manifest just this tendency, to regard their own conclusions as final, and another's conclusions as fallacious. "There is no God but God, and Mohammed is his prophet," is not only the sentiment reiterated by the sects, but is equally the rallying cry of schools of either philosophy or medicine. The "Infidel" disputes the Moslem's sway, till swords are turned into pruning hooks. In spite of penitential prayers and imprisonment, Gallileo reiterates the movement of the earth, and the "authorities," in turn, do penance.

"Pure and undefiled religion" has been the warrant for bloodshed and slaughter; and "Pure Homœopathy" is becoming an inquisitorial iron bedstead not only for adjusting differences of opinion and medical experience, but for staying the progress of medical science. The question in many minds is not so much whether a certain mode of procedure is practical and best; not so much whether a principle be true, as whether it is Homœopathic. Schiller defines a philosopher "as one who always loves truth better than his system." Alas! how few of us are true philosophers. Are we not in danger of loving our system of medicine more than truth?

May not one believe in the truth of the law of Similia, and at the same time believe that there are conditions of organic or functional disturbance which do not come under that law? Shall we never learn to respect the validity of another's experience, even when it seems to differ from our own? or shall we continue to insist that our neighbor shall measure his grain by our bushel?

Unity of sentiment is the death of progress; and many a man has kissed the book while concealing a dagger to cut the throat of the priest who held it. Catholicity begets insincerity. Freedom of opinion is the handmaid of truth. Medical science is older, broader, and higher than Homœopathy. Science embraces many laws; Homœopathy announces but one, and that one but partially comprehended. And in this condition of things, to claim that it covers all conditions of disease, excluding all other modes of procedure, in short, that it is the summa summarum of medical skill, and medical knowledge, is no less short-sighted than to declare it all a humbug, without an investigation. The breadth and scope of the law of similars has certainly not yet been fully ascertained. Nor is it likely that the present generation will compass it; but if we are to be of any service in its final adjustment, or contribute any thing toward that end, it will not be by formulating a creed and laboring by the aid of the usual appliances; viz., ostracism and denunciation, to build up a medical sect, in which there would be about as much living energy as in the fossil remains of the old Silurian.

J. D. B.

Translakions.

DENUDATION AND STRETCHING OF THE LOWER FOUR CERVICAL NERVES.

PERMANENT RELIEF OF SPASM OF THE MUSCLES AND ANÆS-THESIA, BY PROF. DR. V. NUSSBAUM, MUNICH.

Rudolph Hailes, soldier, 23 years old, had served in the Franco-German war, and had recieved at Bazeilles, a blow with the butt-end of a gun, upon his left elbow, and also upon the nape of his neck. An abcess appeared upon his neck, which healed in fourteen days. In consequence of these two injuries there resulted a spasmodic contraction of the left pectoralis major, and minor, and of all the flexors of the left arm forearm and hand. The contraction of the muscles, was so powerful and constant that it was impossible for any one to extend

the fingers, and elbow of the patient at the same time. The sensibility of the parts too, was greatly reduced but not entirely wanting. Pricking with a needle, on the dorsal surface of the forearm was not felt, but deeper cuts caused slight pain. Mr. Hailes had undergone all kinds of good medical treatment without benefit. Electricity had been tried for months successively. Opium, Belladonna, Mercury, etc., externally and internally, vesicants, gymnastics, baths of all kinds everywhere, were used in vain. Mr. Hailes submitted patiently to every kind of treatment, declaring he would rather die than drag out such a miserable existence. Under chloroform which I used several times, all the contracted muscles could be easily stretched, as is always the case in spasm, and the arm bound upon a board; but before even consciousness had returned it was always found necessary to remove the bandages and board for fear of inflicting deep wounds in the flesh.

A couple of hours after the chloroforming he was always seized with muscular spasms, through the whole body, together with slight loss of consciousness, which however passed off in a few minutes. Mr Hailes was in a very unfortunate and miserable condition, as may readily be imagined. He had submitted willingly to having several of the tendons divided subcutaneously, which afforded relief for a few days only. I regarded the case as one of irritation of the motor nerves, with implication of the cord. Prof. Voit (Physiologist) had the kindness to examine the patient most carefully, and declared the case a very serious one, as all the symptoms pointed to a central cause. The Prof. observed that the motor branches of the four inferior cervical nerves. were evidently suffering, while the sensory branches seemed but little affected, and as the motor, and sensory branches are isolated from one another, within the canal, and united only after their exit, it was highly probable that the seat of the lesion was in the cord itself, viz.: at the origin of the motor root. Large doses of narcotics were now administered. Strychnia internally, and hypodermically seemed to do more harm than good. The poor patient often begged me to cut out the entire nerve. I recollected having seen wonderfully successful results follow the excision of a

compressed nerve or a sensitive scar, at the clinic of the celebrated Romberg in Berlin, in 1855. I read over a dozen times a case of Epilepsy in which Prof. Billroth had caused the attacks to cease, for some length of time, by laying bare, and pulling the ischiatic nerve. I did not forget, either, the reports of experiments by Brown Sequard, who had produced epilepsy in Guinia pigs, by injuring the ischiatic, but poor Hailes' case had nothing in common with epilepsy. Here was a case of partial loss of sensibility and tonic spasm of the flexors, to treat, and the seat of the disease was the cervical portion of the spinal cord, itself,

In the winter of 1860-1, at the clinic of Professor Dr. Hanuer. I had seen the resection of the elbow joint of a little girl six years old, for anchylosis, and to the astonishment of all, a severe and painful contraction of the fourth and fifth fingers was relieved at the same time, by the stretching of the ulnar nerve during the operation. This case resembled Hailes' most, and I determined, therefore, to lay bare the four inferior cervical nerves, trace them to their point of exit from the spinal column, and at this place stretch them as much as possible, in order to break up possible adhesions, and so influence the cord that a cure might follow, as in the above mentioned case of resection. The patient was accordingly, on the 15th of February, deeply narcotised, and I began the operation by making a longitudinal incision of three inches directly over the ulnar nerve at the elbow, raised the nerve out of its groove, gently stretched and replaced it, cleansed the wound, and sewed it up. I then made a second incision of three inches in the left axilla, close over the artery, detached the various filaments of the nerves, both of the skin and muscles, recognized the median, radial, and ulnar by their causing, when stretched, jerkings of their respective muscles; then cleansed the wound, and sewed it up.

Finally I made a three inch transverse incision over the greatest curve of the left clavicle, divided the platysma myoides, prepared the inferior cervical nerves, some of which lie before, and some behind, the subclavia, raised them out with my fingers, followed each to its point of exit from the spinal column (which proved much easier than I had anticipated), moved and stretched them in all directions as much as possible, with the point of the index finger, and also drew each filament gently in the direction

as if I would draw it out of the column. During these manipulations there occurred violent twitchings of the left arm and pectoral muscles. I then returned the nerve filaments, none of which appeared abnormal, as well as possible to their proper places, tied two small vessels, cleansed the wound, and sewed it up.

According to the rest of the report, the patient experienced immediate relief from both spasm and anæsthesia, and continued steadily to improve in health from that time.

Translated by F. H. Schell, M. D., from the Intelligenzblatt, 1872. No. 9.

Department of Physics.

G. SAAL, M. D., EDITOR.

PHYSICS AND POLITICS.

BY T. P. WILSON, M. D.

WALTER BAGEHOT, a gentleman not unknown as a writer to the British public, presents himself to the American public through a neat little work on the above topic. The book forms part of the "Scientific Series," being issued from the press of D. Appleton & Co. The title is sure to prove attractive, but far less so than the contents. It is fresh, original, and striking, and is brim full of the most important suggestions. Those who are yet doubtfully discussing the elementary principles of the laws of evolution as elucidated by Herbert Spencer, or who are holding a position of antagonism to Mr. Charles Darwin's theory of natural selection, will doubtless hesitate to willingly accompany our author in his attempted application of these theories to poli-We are slow to comprehend the orderly operations of na-We are busy striking the last shackles from the limbs of meteorology. Our scientists are busily explaining how rain, snow, frost, temperature, and lightning are governed and determined by law. Monsieur Probabilities, at Washington, is actually forecasting each to-morrow for us, and we are no longer left to the changing whims of gods or men. But for the nonce we have

left society to take care of itself as best it might. We have assumed politics to be ungoverned and ungovernable. Mr. Froude, formerly a distinguished historian, and now an extinguished controversialist, has said that he knew no law governing history. Most authors upon this subject have failed to see the orderly sequence of historical phenomena. Events have happened, and that is all, except that historians have related the events, and moralized thereon. Mr. Bagehot writes to show that the laws of evolution, applied here, prove that order, and not chaos, has ruled over the destiny of the human race, from the primitive man until now. His first chapter is on "The Preliminary Age," and gives a rational insight into the motives that led the first men to lay the foundations of society. The second chapter is on "The Use of Conflict," and shows that however much we may now deplore war, it was the normal condition and chief civilizing power in the early ages. From the third chapter, on "Nation-Making," we make a brief extract:

"The best nations conquered the worst; by the possession of one advantage or another the best competitor overcame the inferior competitor. So long as there was continual fighting there was a likelihood of improvement in martial virtues, and in early times many virtues are really 'martial'—that is, tend to success in war - which in later times we do not think of so calling, because the original usefulness is hid by their later usefulness. We judge of them by the present effects, not by their first. The love of law, for example, is a virtue which no one now would call martial, vet in early times it disciplined nations, and the disciplined nations won. The gift of 'conservative innovation'—the gift of matching new institutions to old—is not nowadays a warlike virtue, yet the Romans owed much of their success to it. among ancient nations they had the deference to usage which combines nations, and the partial permission of selected change which improves nations; and therefore they succeeded. Just so in most cases, all through the earliest times, martial merit is a token of real merit: the nation that wins is the nation that ought to win. The simple virtues of such ages mostly make a man a soldier if they make him anything. No doubt the brute force of number may be too potent even then (as so often it is afterward): civilization may be thrown back by the conquest of many very

rude men over a few less rude men. But the first elements of civilization are great military advantages, and, roughly, it is a rule of the first times that you can infer merit from conquest, and that progress is promoted by the competitive examination of constant war.

"This principle explains at once why the 'protected' regions of the world—the interior of continents like Africa, outlying islands like Australia or New Zealand—are of necessity backward. They are still in the preparatory school; they have not been taken on class by class, as No. II., being a little better, routed and effaced No. I.; and as No. III., being a little better still, routed and effaced No. II. And it explains why Western Europe was early in advance of other countries, because there the contest of races was exceedingly severe. Unlike most regions, it was a tempting part of the world, and yet not a corrupting part; those who did not possess it wanted it, and those who had it, not being enervated, could struggle hard to keep it. The conflict of nations is at first a main force in the improvement of nations.

"But what are nations? What are these groups which are so familiar to us, and yet, if we stop to think, so strange; which are as old as history; which Herodotus found in almost as great numbers and with quite as marked distinctions as we see them now? What breaks the human race up into fragments so unlike one another, and yet each in its interior so monotonous? The question is most puzzling, though the fact is so familiar, and I would not venture to say that I can answer it completely, though I can advance some considerations which, as it seems to me, go a certain way toward answering it. Perhaps these same considerations throw some light, too, on the further and still more interesting question why some few nations progress, and why the greater part do not.

"Of course, at first all such distinctions of nation and nation were explained by original diversity of race. They are dissimilar, it was said, because they were created dissimilar. But in most cases this easy supposition will not do its work. You can not (consistently with plain facts) imagine enough original races to make it tenable. Some half-dozen or more great families of men may or may not have been descended from separate first stocks, but sub-varieties have certainly not so descended. You may ar-

gue, rightly or wrongly, that all Aryan nations are of a single or peculiar origin, just as it was long believed that all Greek speaking nations were of one such stock. But you will not be listened to if you say that there were one Adam and Eve for Sparta, and another Adam and Eve for Athens. All Greeks are evidently of one origin, but within the limits of the Greek family, as of all other families, there is some contrast-making force which causes city to be unlike city, and tribe unlike tribe.

"Certainly, too, nations did not originate by simple natural selection, as wild varieties of animals (I do not speak now of species), no doubt arise in nature. Natural selection means the preservation of those individuals which struggle best with the forces that oppose their race. But you could not show that the natural obstacles opposing human life much differed between Sparta and Athens, or indeed between Rome and Athens; and vet Spartans. Athenians, and Romans differ essentially. Old writers fancied (and it was a very natural idea) that the direct effect of climate. or rather of land, sea, and air, and the sum total of physical conditions varied man from man, and changed race to race. But experience refutes this. The English immigrant lives in the same climate as the Australian or Tasmanian, but he has not become like those races; nor will a thousand years, in most respects, make The Papuan and the Malay, as Mr. Wallace him like them. finds, live now, and have lived for ages, side by side in the same tropical regions, with every sort of diversity. Even in animals his researches show, as by an object-lesson, that the direct efficacy of physical conditions is overrated. 'Borneo,' he says, 'closely resembles New Guinea, not only in its vast size and freedom from volcanoes, but in its variety of geological structure, its uniformity of climate, and the general aspect of the forest vegetation that The Moluccas are the counterpart of the clothes its surface. Philippines in their volcanic structure, their extreme fertility, their luxuriant forests, and their frequent earthquakes; and Bali, with the east end of Java, has a climate almost as arid as that of Timor. Yet between these corresponding groups of islands, constructed, as it were, after the same pattern, subjected to the same climate, and bathed by the same oceans, there exists the greatest possible contrast, when we compare their animal productions. Nowhere does the ancient doctrine—that differences or similari-

ties in the various forms of life that inhabit different countries are

due to corresponding physical differences or similarities in the countries themselves—meet with so direct and palpable a contradiction. Borneo and New Guinea, as alike physically as two distinct countries can be, are zoologically as wide as the poles asunder; while Australia, with its dry winds, its open plains, its stony deserts, and its temperate climate, yet produces birds and quadrupeds which are closely related to those inhabiting the hot, damp, luxuriant forests which every where clothe the plains and mountains of New Guinea.' That is, we have like living things in the most dissimilar situations, and unlike living things in the most dissimilar situations, and unlike living things in the most similar ones. And though some of Mr. Wallace's speculations on ethnology may be doubtful, no one doubts that in the archipelago he has studied so well, as often elsewhere in the world, though rarely with such marked emphasis, we find like men in contrasted places, and unlike men in resembling places. Climate is clearly not the force which makes nations, for it does not always make them, and they are often made without it.

"The problem of 'nation-making'—that is, the explanation of the origin of nations such as we now see them, and such as in historical times they have always been—can not, as it seems to me, be solved without separating it into two: one, the making of broadly-marked races, such as the negro, or the red man, or the European; and the second, that of making the minor distinctions, such as the distinction between Spartan and Athenian, or between Scotchman and Englishman. Nations, as we see them, are (if my arguments prove true) the product of two great forces: one the race-making force, which, whatever it was, acted in antiquity, and has now wholly, or almost, given over acting; and the other the nation-making force, properly so called, which is acting now as much as it ever acted, and creating as much as it ever created.

"The strongest light on the great causes which have formed and are forming nations is thrown by the smaller causes which are altering nations. The way in which nations change, generation after generation, is exceedingly curious, and the change occasionally happens when it is very hard to account for. Something seems to steal over society, say of the Regency time as compared with that of the present Queen. If we read of life at Windsor (at the cottage now pulled down), or of Bond Street as it was in the days of the Loungers (an extinct race), or of St. James's

Street as it was when Mr. Fox and his party tried to make 'political capital' out of the dissipation of an heir apparent, we seem to be reading not of the places we know so well, but of very distant and unlike localities. Or let any one think how little is the external change in England between the age of Elizabeth and the age of Anne compared with the national change. How few were the alterations in physical condition, how few (if any) the scientific inventions affecting human life which the later period possessed, but the earlier did not! How hard it is to say what has caused the change in the people! And yet how total is the contrast, at least at first sight! In passing from Bacon to Addison, from Shakspeare to Pope, we seem to pass into a new world.

"Of course there was always some reason (if we only could find it) which gave the prominence in each age to some particular winning literature. There always is some reason why the fashion of female dress is what it is. But just as in the case of dress we know that now-a-days the determining cause is very much of an accident, so in the case of literary fashion, the origin is a good deal of an accident. What the milliners of Paris, or the demimonde of Paris, enjoin our English ladies, is (I suppose) a good deal chance; but as soon as it is decreed, those whom it suits and those whom it does not all wear it. The imitative propensity at once insures uniformity; and 'that horrid thing we wore last year' (as the phrase may go) is soon nowhere to be seen. Just so a literary fashion spreads, though I am far from saying with equal primitive unreasonableness—a literary taste always begins on some decent reason, but once started, it is propagated as a fashion in dress is propagated; even those who do not like it read it because it is there, and because nothing else is easily to be found.

'The same patronage of favored forms, and persecution of disliked forms, are the main causes too, I believe, which change national character. Some one attractive type catches the eye, so to speak, of the nation, or a part of the nation, as servants catch the gait of their masters, or as mobile girls come home speaking the special words and acting the little gestures of each family whom they may have been visiting. I do not know if many of my readers happen to have read Father Newman's celebrated sermon, 'Personal Influence the Means of Propagating the Truth;' if not, I strongly recommend them to do so. They will there see the opinion of a great practical leader of men, of one who has led

very many where they little thought of going, as to the mode in which they are to be led; and what he says, put shortly and simply, and taken out of his delicate language, is but this-that men are guided by type, not by argument; that some winning instance must be set up before them, or the sermon will be vain, and the doctrine will not spread. I do not want to illustrate this matter from religious history, for I should be led far from my purpose, and after all I can but teach the commonplace that it is the life of teachers which is catching, not their tenets. And again, in political matters, how quickly a leading statesman can change the tone of the community! We are most of us earnest with Mr. Gladstone; we were most of us not so earnest in the time of Lord The change is what every one feels, though no one can define it. Each predominant mind calls out a corresponding sentiment in the country; most feel it a little. Those who feel it much express it much; those who feel it excessively express it excessively; those who dissent are silent, or unheard.

"After such great matters as religion and politics, it may seem trifling to illustrate the subject from little boys. But it is not trifling. The bane of philosophy is pomposity: people will not see that small things are the miniatures of greater, and it seems a loss of abstract dignity to freshen their minds by object lessons from what they know. But every boarding-school changes as a nation changes. Most of us may remember thinking, How odd it is that this 'half' should be so unlike the last 'half:' now we never go out of bounds, last half we were always going: now we play roundees, then we played prisoner's base; and so through all the easy life of that time. In fact, some ruling spirits, some one or two ascendant boys, had left, one or two others had come; and so all was changed. The models were changed, and the copies changed; a different thing was praised, and a different thing bullied. A curious case of the same tendency was noticed to me only lately. A friend of mine—a Liberal Conservative—addressed a meeting of working men at Leeds, and was much pleased at finding his characteristic, and perhaps refined points, both apprehended and applauded. 'But then,' as he narrated, 'up rose a blatant Radical who said the very opposite things, and the workingmen cheered him too, and quite equally.' He was puzzled to account for so rapid a change. But the mass of the meeting was no

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doubt nearly neutral, and, if set going, quite ready to applaud any good words without much thinking. The ringleaders changed. The radical tailor started the radical cheer; the more moderate shoemaker started the moderate cheer; and the great bulk followed suit. Only a few in each case were silent, and an absolute contrast was in ten minutes presented by the same elements.

"The truth is, that the propensity of man to imitate what is before him is one of the strongest parts of his nature. And one sign of it is the great pain which we feel when our imitation has been unsuccessful. There is a cynical doctrine that most men would rather be accused of wickedness than of gaucherie. And this is but another way of saying that the bad copying of predominant manners is felt to be more of a disgrace than common consideration would account for its being, since gaucherie in all but extravagant cases is not an offense against the religion or morals, but is simply bad imitation.

"We must not think that this imitation is voluntary, or even conscious. On the contrary, it has its seat mainly in very obscure parts of the mind, whose notions, so far from having been consciously produced, are hardly felt to exist; so far from being conceived beforehand, are not even felt at the time. The main seat of the imitative part of our nature is our belief, and the causes predisposing us to believe this, or disinclining us to believe that, are among the obscurest parts of our nature. But as to the imitative nature of credulity there can be no doubt. In 'Eothen' there is a capital description of how every sort of European resident in the East, even the shrewd merchant and 'the post-captain,' with his bright, wakeful eyes of commerce, comes soon to believe in witchcraft, and to assure you, in confidence, that there 'really is something in it.' He has never seen any thing convincing himself, but he has seen those who have seen those who have seen those who have seen. In fact, he has lived in an atmosphere of infectious belief, and he has inhaled it. Scarcely any one can help yielding to the current infatuations of his sect or party. For a short time -say some fortnight-he is resolute; he argues and objects; but day by day, the poison thrives, and reason wanes. hears from his friends, what he reads in the party organ, produces its effect. The plain, palpable conclusion which every one around him believes, has an influence yet greater and more subtle: that conclusion seems so solid and unmistakable; his own good arguments get daily more and more like a dream. Soon the gravest sage shares the folly of the party with which he acts, and the sect with which he worships.

"In true metaphysics I believe that, contrary to common opinion, unbelief far oftener needs a reason and requires an effort than belief. Naturally, and if man were made according to the pattern of the logicians, he would say, 'When I see a valid argument I will believe, and till I see such argument I will not believe. But, in fact, every idea vividly before us soon appears to us to be true, unless we keep up our perceptions of the arguments which prove it untrue, and voluntarily coerce our minds to remember its falsehood. 'All clear ideas are true,' was for ages a philosophical maxim, and though no maxim can be more unsound, none can be more exactly conformable to ordinary human nature. The child resolutely accepts every idea which passes through its brain as true; it has no distinct conception of an idea which is strong, bright, and permanent, but which is false too. The mere presentation of an idea, unless we are careful about it, or unless there is within some unusual resistance, makes us believe it; and this is why the belief of others adds to our belief so quickly, for no ideas seem so very clear as those inculcated on us from every side.

"The grave part of mankind are quite as liable to these imitated beliefs as the frivolous part. The belief of the money-market, which is mainly composed of grave people, is as imitative as any belief. You will find one day every one enterprising, enthusiastic, vigorous, eager to buy, and eager to order; in a week or so you will find almost the whole society depressed, anxious, and wanting to sell. If you examine the reason for the activity, or for the inactivity, or for the change, you will hardly be able to trace them at all, and as far as you can trace them, they are of little force. In fact, these opinions were not formed by reason, but by mimicry. Something happened that looked a little good, on which eager sanguine men talked loudly, and common people caught their tone. A little while afterward, and when people were tired of talking this, something also happened looking a little bad, on which the dismal, anxious people began, and all the rest followed their words. And in both cases an avowed dissentient is set down as 'crotchety.' 'If you want,' said Swift, 'to gain

the reputation of a sensible man, you should be of the opinion of the person with whom, for the time being, you are conversing.' There is much quiet intellectual persecution among 'reasonable' men; a cautious person hesitates before he tells them anything new, for if he gets a name for such things he will be called 'flighty,' and in times of decision he will not be attended to.

"In this way the infection of imitation catches men in their most inward and intellectual part—their creed. But it also invades men-by the most bodily part of the mind-so to speakthe link between soul and body—the manner. No one needs to have this explained; we all know how a kind of subtle influence makes us imitate or try to imitate the manner of those around us. To conform to the fashion of Rome-whatever the fashion may be, and whatever Rome we may for the time be at-is among the most obvious needs of human nature. But what is not so obvious. though as certain, is that the influence of the imitation goes deep as well as extends wide. 'The matter,' as Wordsworth says, 'of style very much comes out of the manner.' If you will endeavor to write an imitation of the thoughts of Swift in a copy of the style of Addison, you will find that not only is it hard to write Addison's style, from its intrinsic excellence, but also that the more you approach to it the more you lose the thought of Swift. The eager passion of the meaning beats upon the mild drapery of the words. So you could not express the plain thoughts of an Englishman in the grand manner of a Spaniard. Insensibly, and as by a sort of magic, the kind of manner which a man catches eats into him, and makes him in the end what at first he only seems.

"This is the principal mode in which the greatest minds of an age produce their effect. They set the tone which others take, and the fashion which others use. There is an odd idea that those who take what is called a 'scientific' view of history need rate lightly the influence of individual character. It would be as reasonable to say that those who take a scientific view of nature need think little of the influence of the sun. In the scientific view a great man is a great new cause (compounded or not out of other causes, for I do not here, or elsewhere in these papers, raise the question of free-will), new in all its effects, and all its results. Great models for good and evil sometimes appear among men, who follow them either to improvement or degradation."

GENERAL HYGIENE.

BY THE EDITOR OF THE DEPARTMENT.

The ancients had a far keener perception of its importance, in as far as they endued Hygiene with the rank and insignia of a goddess, while Æsculapius, the son of Apollo, the father of the healing art, was only a demigod.

We find, as the result of such philosophy or religion, a people grown up and educated into that beautiful equilibrium of accomplishments of mind and body, and that perfect health of both, without which, according to their belief, no usefulness to the common welfare would be expected from the individual.

We find, further, the philosophy of Aristotle and Plato reaching down and influencing even the modern mind and their works of art, particularly in sculpture, as models in our schools and academies of design. Hygiene, as a science, is the knowledge of the nature of man and the outward factors influencing his being in all its relations.

As an art Hygiene is the practical application of all the natural sciences for the preservation of health and the prolongation of life. She is the youngest child of the venerable medical art, and will soon outgrow her parent.

Commencing with the individual we have the personal hygiene, which in fact commences during gestation; after the period of nursing and dentition we next have the hygiene of the schoolroom, which ought to be a part of public hygiene, and every teacher should be examined in matters pertaining to the same. We have further a hygiene for the army and navy, called military; then again, we have a special hygiene for the hospital and sick room.

The laws and regulations, different as they may be for the different ages and conditions of life as to food and drink, comprising diet—as to dress, care of skin, and so on—these laws have their foundation in the science of general hygiene, which forms the subject of our present lecture.

The advanced thinkers of the medical profession perceive that the spirit of our times does not ask, as formerly, for medication, but for preventive hygienic measures; that our efforts should be directed more especially to the prevention of diseases than to their cure; the thinking public is already, and the masses at large soon will be alive to the same fact.

Even Descarte, at his time, said that: "If it is at all possible to perfect the nature of man, the means to do so must come from the study of medical science." But he did not mean by that the science of therapeutics alone; the administration of large or small pills; the search for new remedies to cure diseases, of which Faust speaks so sarcastically:

"That brain alone not loses hope whose choice is To stick in shallow track for evermore— Which digs with eager hands for buried ore, And when it finds an angle worm rejoices."

By no means. He meant the study and investigation of the elementary forces, such as light and heat, electricity and magnetism; in short, the cultivation of the natural sciences, physics, and chemistry, basing upon them the knowledge of the structure and function of the human body, and of the factors deranging these functions, the laws of governing or removing these factors, and the means of retaining the functions in their normal condition.

To stand in the front rank, or as our Dean in the words of Daniel Webster expressed himself, to be placed upon the upper shelf, it is indispensable to impress upon the minds of our students the fact that the medical sciences are nothing more or less than the natural sciences applied for the purpose of preventing diseases and correcting disorders; that consequently a thorough knowledge of the sciences is the first and sine qua non requisite for a correct understanding of physiology and nosology.

They are the ladder by which we can reach the upper shelf; they are the fulcrum and the only one by which we can lift the practice of medicine, which for the most part is nothing but a blind empiricism, to the rank of a science.

But, some of you may say, what relation has this to our aims? We came here to be instructed how to cure, to make sick people well, to understand the symptoms of the different diseases, the bearing of these symptoms on prognosis, and what remedies we have to apply to remove these symptoms and restore health. People nowadays will not pay for hygienic instruction; nay, some of them do not like to be instructed how to keep well. We live in a civilized country; we have not come down to the barbarian level

of the "Heathen Chinee," where people pay their doctors only as long as they keep well, and stop their pay as soon as they get sick; where old folks make fools of themselves, and, instead of sticking to their business until they have accumulated a fortune which they are unable to enjoy on account of their overworked brain and broken down constitution, as our merchants and business men do; where, I say, old folks become children and fly kites.

Having chosen the profession of medicine to make a living, we must go as our clients wish.

This is really the true practical standpoint for such as have no higher aim than to get a piece of sheep skin, signed by a number of respectable and dignified looking persons, with a license to practice medicine, to become popular by yielding to the whims and prejudices of a half educated community, sharing their superstitions; by such popularity gain riches, and be respected among the respectable.

With such as are satisfied with these aims and results, these lectures will have nothing in common; but to the real physician (and physician, according to Webster, means an experimentalist in the natural sciences), who, at the same time, with a philanthropic heart, seeing the manifold evils under which the individual, as well as mankind in general is suffering, through an imperfect knowledge of the nature of these evils, and the means of their removal, to him the study of hygiene and toxicology will prove not only a source of great benefit for the cultivation and perfection of his special profession, but also of real unadulterated pleasure, as can only be derived from the consciousness of having done something really good for the amelioration of his fellow-men.

Closely connected with the science of hygiene is that of toxicology, if we take it in its widest sense. Heretofore it has been treated as a separate branch of the medical sciences, while it is in fact nothing but a part, and the fundamental part of hygiene, generally called etiology, or the science of the causes of diseases. Under the name of toxicon, "poison," we comprise all substances, either natural or artificial, which by the chemical action of their molecules and by the powers imminent in them, acting upon the body and entering into competition with the activity of the organism, do not prove serviceable for the normal process of nutri-

tion, namely, the formation, growth, and restorative function of the body; but, on the contrary, under certain conditions, will change more or less the form and proportions of mixture of the organic parts, and thus causing more or less of a disturbance of the functions, or a destruction of the organs, or even death. To be brief, we call poisons, toxicons, such bodies belonging to the class of chemical influences or agents from without, which when assimilated in large or small doses will endanger life.

And in this sense toxicology and hygiene are the foundation for practical medicine; they instruct us on the means of preserving the health and welfare of the individuals as well as of Nations.

They mitigate epidemic and sporadic diseases, preserve the most valuable boon, which is good health, prolong life, and in this manner contribute to the production of healthful offspring. The good arising from the cultivation of these sciences is immeasurable, and as soon as, at some future time, the sluggish or dormant intellects of the present time (only half or little civilized) shall have been penetrated by these two sciences, men will be induced by them to shake off the heavy chains of folly and superstition, and as a free citizen of the world to lay the foundation of lasting welfare of both their bodies and minds.

Modern investigations have proved, beyond doubt, that all zymotic diseases, from cholera down to whooping-cough and influenza, owe their origin to two factors, namely:

- 1. An outward factor (toxicon), in all probability a microscopic spore-endemic, adhering to its native soil, as an intermittent fever, —epidemic, migratory from place to place, as in cholera.
- 2. A disposition of the organism, either inherited, but mostly acquired by morbid habits of life or unfavorable surroundings, furnishing a congenial soil for the irruption and growth of said microscopic spores.

To prevent the growth of the outward factor (the toxicon), its propagation and spreading; to remove the disposition, the susceptibility of the individual organism for the reception and growth of these outward factors, is the ideal aim of hygiene.

Truly a noble aim. And without depreciating the merits of other reformatory movements, be they in politics or religion, in law or in the administration of social relations and affairs, none has such a wide and universal bearing upon the welfare of man-

kind, and in none can the actual benefits be so clearly demonstrated and properly even mathematically calculated, as in the science of hygiene.

About two hundred years ago, during the last epidemic prevalence of the pest, there died in London in a single night one-fifth of the whole population, namely: three thousand; and why? Because the social condition of the Western Nations of Europe was at that time one of despotism and barbarism, similar to that of the Eastern Nations in India, Egypt, and Persia of the present day, where, according to the reports of late, one third of the population has succumbed to the ravages of cholera and thengutyphus.

It can be clearly demonstrated that thousands of lives have been saved by the judicious execution of sanitary measures. In 1848 the cholera in England was much milder than in 1832, because the social condition of the masses, their mode of living, of their dwelling houses, was superior to that of 1832; still, there died in 1848 and 1849, seventy-two thousand from cholera, but in proportion to the population of Russia, Denmark, and Austria, six hundred thousand would have been the number.

With the increase of civilization and culture the susceptibility of a Nation for the reception of epidemic diseases and the consequent mortality decreases, just as the weakly and sickly fall first, and the strong and healthy hold out the longest during an epidemic.

During 1835 only five per cent. of the Europeans died from the pest in Alexandria, while of the Arabs 55, of the Malay 65, and of the negroes from Nubia even 85 per cent. were carried off, the percentage in exact proportion to the grade of their respective culture.

It is a matter of congratulation that many of our larger cities are adopting means to secure better ventilation in the Schools and other public buildings. The overcrowded, superheated, poorly cleaned, ill-ventilated schoolroom—where the natural buoyancy of youth is suppressed—is the cause of many broken constitutions,

Materia Medica.

CHAS. CROPPER, M. D., EDITOR.

THE PURIFICATION OF THE MATERIA MEDICA.

Much has been said and written within the past few years in regard to the abridgment, management, and purification of the Homeopathic Materia Medica, from which it may be inferred that there is a generally felt want of such a work; and certainly no one, especially no busy practitioner of medicine, can take up our various works on Materia Medica, with the view of getting what he needs in the way of indications for the selection of a remedial agent applicable for a present purpose, without being painfully convinced that in the profusion and confusion of such works in the symptomology of individual remedies and their reputed range of action, there are almost insurmountable difficulties to be overcome before he can, with any degree of accuracy, select a remedy in accordance with the demands of science and the express teaching of Homoopathy. In writing thus, we do not wish to cast a single reproach on any author, or on any work yet issued. Books have multiplied, having peculiar ends in view, evidently with the purpose of supplying the want which, as we have already intimated, is so generally felt, and each and every author and compiler has no doubt conceived that his book, to some extent, meets the popular demand. To all such laborers in the field we award a generous recognition for the good effected, and the spirit which prompted their hopeful labors; and trust that no one of the enthusiastic cultivators of their branch of medical science will grow weary in well doing, because the goal we all seek is seemingly yet so far in the future.

The desirability, therefore, of placing the Materia Medica in a better and more practical form, is a matter upon which there seems to be no difference of opinion, the only variance being as to the manner in which the much desired work should be accomplished. With many the conviction exists that the Materia Medica is already too voluminous, the number of remedies proven too large, and the symptoms altogether too numerous for

any practical utility, even supposing them always to be of a reliable character. Others think the borders should be constantly extended, that many new remedies should be added to the already long and varied list, and that very special consideration should be given to the later additions to our Materia Medica, and especially to the plants indigenous to our own country.

But there seems to be a great unanimity of sentiment as to the necessity of so arranging our material as to make it of the greatest practical value to the practitioner who, in the discharge of his unceasing round of duty, can find but little time to consult his Materia Medica, as it now exists, with facility and with profit. What he wants is to have his resources in the armamentarium with which he is supplied, as legible as the groups of symptoms constituting the morbid manifestation with which he has to deal-In visiting his patients, his quick eye and patient investigation soon give him an insight into the peculiarities of the case before him, which to his mind individualize the case, and make it to stand out in bold relief as an identity. Now, to have the Materia Medica always practically available in the highest degree, corresponding pathogenetic groups should be readily accessible, in order that the similimum may be ascertained with the promptness that the necessity of the case demands. In the brief space which we design this paper to occupy, we can not enter into minute details as to any plan for arranging the Materia Medica so as to embrace the advantages in practice to which we have adverted, but will merely give a few hints as to what seems to us a useful and practical way to effect an improvement upon the general arrangement followed in most of the works on this branch of medical science.

The difficulties in the way of a classification of the Materia Medica are very great, as any one who has ever undertaken such a task will testify; and we know of no general classification which is likely to be of much service; but it will need to be classified and re-classified with reference to tissues primarily and specially affected; to temperaments; to sex; to conditions; to concomitants, etc. Thus the various agents entering into the composition of our Materia Medica might be first classified with respect to the tissue of the organism primarily and chiefly acted upon; as, for instance, the medicines affecting prominently

the mucous membrane, might be brought together in one class, which might be subdivided with reference to the particular portions of the membrane for which one or another drug should show an elective affinity. And so on through the tissues of the body. Then classification should be made, having regard to the different organs affected; and thus also with the various conditions and concomitants.

As all medicinal substances evidently owe their virtues as curative agents to the various elementary substances of which they are composed, and the peculiar manner in which these elements are chemically combined, of course, in so far as such knowledge is attainable, it ought, also, to be incorporated in a Materia Medica upon the plan we are endeavoring very generally and very briefly to set forth. And were such knowledge of the elementary constituency of remedial agents more accessible, and rendered more practical, we are of the opinion that the number of remedies might be greatly diminished, and with advantage to the science, and also to the practitioner. Chemistry is now being applied, we understand, to the substitution of artificial alkaloids for the natural. If successful, we doubt not that these may be as efficient as remedial agents, as those of natural origin; of course, however, they should be submitted to the same test of proving upon the healthy organism, as no agent whatever should ever be admitted into a Homœopathic Materia Medica without the most extended and the most careful proving. If such artificial preparations should be found to possess the same virtues as those in the natural state, it would be made apparent that the virtue was due to the elements of which they are composed. If, on the other hand, it should not so turn out, then it would be made manifest that there is a vital principle in the natural alkaloid, and hence, the next step would be to ascertain what that peculiar vital principle was, and whether it may be obtained in a simpler form than plant or extract furnish it. This, it seems to us, whether now practicable or not, would be a very decided step taken toward the purification of our Materia Medica. If, however, a purification can not be effected in the way of making the Materia Medica more scientific and more reliable, let no one fancy that it may be either purified or improved by any arbitrary abridgment of its contents. certainly the way in which the work must not be done.

In the plan we have in view every real symptom would have its place and its value. Peculiar symptoms, corresponding with the idiosyncrasies of individuals, and seemingly admitting of no anatomical or physiological classification, should be placed in a department by themselves for the purpose of reference in very peculiar and very obstinate cases.

Prescribing by single symptoms, whatever their importance may be deemed to be, can not fulfil the requirements of scientific medication; and yet there are cases in which it is exceedingly difficult to make a satisfactory diagnosis, and much more difficult to find an appropriate remedy. In such cases a peculiar symptom, if present, may lead to the similar remedy, and if all such symptoms were separately classified, a reference would be much more easily made. Brilliant cures have been effected by prescribing upon a single symptom; but we are of those who would, if possible, prefer being able to better understand the case as well as the agency of the medicine in accomplishing a cure.

Another way in which the Materia Medica might be improved, is to conduct the provings of medicinal substances with a single dose, or a rapid succession of doses, until a pathogenetic action is produced, and then to allow that action to become entirely exhausted before another dose is administered. In this way we would get a consecutive array of symptoms, the order of which should be carefully noted and preserved; thus we would have in our pathogenesy a state of affairs precisely analagous to what takes place when diseases are contracted. First, there is the period of incubation, and then the period of successive development. Provings should also be instituted and separately recorded, with reference to the sex of the prover and the potency employed in the provings.

If some such plan as the one thus briefly sketched—and which should be somewhat extended—were carried out, the Materia Medica might be abridged, improved, and purified without the sacrifice of a single reliable symptom; and be rendered far more convenient and profitable for the use of the student, as well as far more available for the practical purposes of the profession.

C. C.

The great question of the day in Materia Medica is, Shall investigation lead to expansion or contraction, in the list of remedial agencies? A question to be answered by the profession

with a profound regard for the requirements of science, and the demands of the hour. Every year brings upon us a heavier necessity for the scientific organization of that study upon which rests the superstructure of Homeopathy.

Surgical Pathology.

C. C. BRONSON, M. D., EDITOR.

POISONOUS SERPENTS.

BY C. C. BRONSON, M. D.

WHILE preparing a lecture, recently, on the nature of wounds, I had occasion to consult, among other authors, various works on the subject of herpetology; and my mind became deeply impressed with the thought, that in the case of poisonous serpents, we have an astounding instance of the potency of the compensation awarded by Nature to the weak and seemingly defenseless and least finished of all her vast variety of creatures. an animal deprived of limbs, less in size than an ordinary walking-cane, may, with its instrument of defense, a tooth, no larger than a needle, inflict a wound like a needle-prick, that shall speedily slay a man in the full vigor of health and life, is indeed, when one comes to think of it, most wonderful. Yet such is the fact; and true it is also, that the self-styled lord of creation has so often fallen a victim to assaults of this nature, that he has come to regard the whole race of serpents with an instinctive feeling of fear and disgust.

The question naturally arises, What kind of a weapon must this be, that in so small a compass hides such deadly force? The comparative anatomist gives the following analysis of it:

It consists of the instrument that pierces, that is, the tooth, or "poison fang;" the moveable stock or handle in which the piercer is fixed, called the jaw; the muscles, or moving power of the jaw; the bag containing the lethal ammunition, called the "poison sac;" the pipe which carries the venom into the tooth, or "poison duct;" and the squeezer, or muscle, that drives the

venom from the bag, along the duct, through the tooth, into the wound which it inflicts. The poison fang, in order to be adapted to perform its share in the complex machinery, differs much from ordinary teeth, and well merits its special name. As a familiar example of the form of a simple piercing tooth, we will take for illustration the long fang in a dog, a tooth which consists of a hard, pointed, long and slender cone, with a hollow base. Now, if we were to suppose such a slender and partly hollow cone to be rolled out flat, the edges then bent toward each other, and soldered together, so as to form a canal, open at both ends, we would have a fair representation of the general form and structure of a poison fang. The edges of the flattened tooth, which we have supposed to be so approximated, are bent round the end of the poison-duct, which closely adheres to and lines the canal, and the line of union of the two edges runs along the front and convex side of the slightly curved fang. The basal aperture of the poison canal is oblique, and its opposite or terminal outlet is still more so; presenting, says the anatomist, the form of a narrow, elliptical, longitudinal fissure at a short distance from the fang's point; that is left solid and entire, and fit for the purpose of perforation. A very fine hair can be passed through the canal of the poison fang of the rattlesnake. The tooth so modified in the venomous serperts is not implanted in a socket like ordinary teeth, but is firmly soldered—so to speak—to the jaw-bones, which commonly has no other tooth to support, and is singularly modified in size and shape to allow of the movements requisite for the deep plunge of the tooth into the object at which the blow is aimed. It is only the upper jaw that is so armed; and this, instead of being wedged immoveably, as in most other animals, between other bones of the face or muzzle, is attached by one small part of its surface to a bone above and behind it, the joint being that hinge-like interlocking, called ginglymoid, which restricts the motion to one place, but allows the part freely to move in that direction. The upper jaw of venomous serpents play or rotate backward and forward, having special muscles for those movements, which, when they push forward the jaw, bring the teeth attached to it into a vertical position, ready for action, and, when they draw back the jaw, replace the tooth in a horizontal position, where it rests, with the point backward, hidden in a bed of soft slimy gum.

The poison glands and bags occupy the sides of the hinder half of the head, and in many serpents give a swollen appearance to that part, characteristic of such venomous species. Each gland consists of a number of long and narrow strips, called lobes, extending from the main bag, or beginning of the duct, which runs along the lower border of the gland; and each lobe gives off lobules, which are again subdivided into little cells, where the poison is first elaborated or extracted from the blood that circulates over the cells in myriads of little capillary channels. • The whole gland is surrounded by a firm membrane, or aponeurosis, and this membrane is in connection with the muscles by whose contraction the cells and lobes of the gland are compressed and emptied of their secretion. The poison is conveyed by the duct to the basal aperture of the canal in the fang; and. as the salivary glands in other animals are most active during particular emotions—as, by the sight of food when they are hungry—so the rage which stimulates the serpent to use its envenomed deadly weapon, doubtless excites an active secretion by the poison glands. As before stated, the wound is inflicted by a blow rather than by a bite. When erected, the poison fangs are struck like daggers into the part aimed at; and, as the action of the compressing muscles of the bag is contemporaneous with the blow by which the wound is inflicted, the poison is at the same moment injected with force into the wound from the apical, or terminal outlet of the perforated fang.

The poison acts with more or less speed and effect according to the species of serpent, the vigor of the individual serpent, the season of the year, and, also, the part wounded. The subtle fluid mixes with the blood, and is conveyed with the rapidity of the circulation to the brain, upon which its specific properties is first to operate. It is a direct palsier of nervous action. No sooner does this tremendous energy begin to impress the system, than the inlets of the senses begin to close upon the outer world; the eyes are dimmed, the ears stopped, the tongue falters; the torpid brain then reacts upon the heart, whose firm pulsations are reduced to feeble flutterings; the breath gets scantier, the limbs grow cold, and death supervenes, it may be in ten minutes, in half an hour, in an hour—or, possibly, at a later but very limited period of time. The chances of recovery

are always found to be in a ratio with the slowness of the operation of the poison.

What is this strange and subtle fluid, whose minutest portion possesses such terrible power, which can so speedily quell the torce of the active brain and nervous system of a man? To sight, and smell, and taste, it seems a mere harmless saliva. Chemical analysis detects in it a little mucus, much water, and some of the salts of saliva; from which it differs mainly in the slight predominance of an animal acid. There is nothing in all this that could suggest, before hand, the specific properties of the secretion. It is not poisonous when taken into the stomach. The only danger in swallowing the venom of the viper, cobra. or rattlesnake, arises from the possibility of some blister or scar. or any lesion of the mucous membrane of the mouth, throat, or esophagus, which might allow the poison to be absorbed, and enter the circulating blood. The readiest, therefore, and perhaps the most efficient remedy, that of sucking the wound, may be performed with scarcely any risk. This has been known of old. "Whoever," writes Celsus, "will suck the wound, will be both safe himself and save the sufferer". As to remedies: whenever a person has been the subject of attack, the first indication is to remove the inoculated venom, either by suction or excision; but this, to be effective, must be done promptly, almost instantly after the bite. Olive oil around, and dry radiating heat should then be applied directly to the wound. Alcoholic stimulants and ammonia should be administered freely to the patient until the effect of the poisoning is past.

In the light of this subject, we see a familiar, but striking example of the effect on the animal economy of an almost infinitesimal, yet potent, and deadly power; showing how that finely balanced entity we call vital existence, or life, may be influenced, or swiftly destroyed by a minute principle, inimical to its wellbeing, that quantity has little to do with resulting and proving effects.

Aural and Ophihalmic Surgery.

T. P. WILSON, M. D., EDITOR.

HASSENSTEIN'S AURAL SPECULUM.

It is now nearly two years since this valuable instrument has been introduced into this country. On our recent visit to New York and Philadelphia, we did not find it in possession of any of the instrument makers or specialists. Its value seems to be almost wholly overlooked. And having had it in daily practice for over a year and a half, I am too deeply impressed with its great usefulness to willingly let it remain in longer obscurity. The object of the instrument is to give a greatly magnified and illuminated view of the tympanic membrane; and its power to do this ranks equally with the ophthalmoscope in its investigations of the eye. And besides its great simplicity and ease of use commends it strongly to the attention of the profession. The form of the instrument, reduced three-fourths is represented in Fig. 1. It is a hard rubber cylinder, with a strong lens at A,



and an oblique mirror at B, in which is a central perforation. Three sizes of tips are made to suit the various forms of the meatus. A considerable amount of experience is necessary to manipulate it readily and successfully. When properly adjusted it will surprise any one who has viewed the tympanic membrane only through a conical Wilde speculum. Both in New York and Philadelphia we tound a somewhat similar instrument, but in every respect it was inferior to the Hassenstein Speculum.

A cut of the former instrument may be found in the "Transactions American Institute of Homœopathy, 1871."

The Siegel Speculum, a cut of which may be found at Fig. 2, has been found of great use in testing the mobility of the tympanic membrane, and the patency of the Eustachian tube. When placed in the meatus the air may be withdrawn by suc-

tion of the tube, and the exhaustion will pretty clearly reveal the excursion of the membrane.



This requires a strong illumination, and does not give a magnified view of the parts.

We propose now a combination of the two instruments, which will fully answer the uses of both. Fig. 3 will show our modi-



fied, or combined speculum. The cylinder is made of glass, blackened on the inside, except over the mirror, where light is admitted. Placed in the ear it will enable us to exhaust the air by means of the tube, and the view being strongly illuminated and enlarged, we have at our command the most ample opportunity for observing the position, color, condition, and mobility of the tympanic membrane.

T. P. W.

TATTOOING THE CORNEA.

It has long been noticed as an unpleasant sequel to opthhalmic inflammations, that the cornea is left opaque and white. This, while it is a source of mortification to the patient, is decidedly unpleasant to the beholder. It has also given rise to the objectionable nick-name of "wall eye." Heretofore oculists have been unable to remedy the defect, except by the wearing of glasses. Of late, however, a new and admirable mode of artificially coloring the cornea has been instituted, and with the happiest effect. Very properly, it is called tattooing, as it is in effect the same process the Indians use in inserting colored pigments beneath their cuticle.

In tinting the cornea the substance chiefly used is India ink. By Wecker, of Paris, to whom we are indebted for the suggestion, the ink, after being laid upon the surface of the cornea, is introduced by a large number of fine punctures, made by a grooved needle. This requires several sittings, though it is not unpleasantly painful to the patient. Levis, of Philadelphia, suggests an important improvement in the operation. He uses from three to six fine sewing needles, winds them together with a thread, and then inserts them into a suitable handle. The points may be made to correspond, by first setting them upon a hard, smooth surface. With this instrument the tattooing may be performed in a much shorter time. The precise mode is to reduce the pigments to a paste, wipe the cornea dry, and, with a brush, put on the paste just where it is needed. The needles are then made to penetrate the underlying tissue rapidly and repeatedly. so as to leave no spot untouched. After the operation, the eve may be washed off, and if defective, the operation may be repeated. The lids may be held apart by an assistant, though sometimes we may have to use the spring speculum, or even give the patient chloroform. Some skill and taste is required in making the operation every way satisfactory. While it may be useful in certain optical defects, its chief value lies in its cosmetic effects. It restores lost beauty, and saves a world of mortification. Dr. Davis, of Evansville, Indiana, writes us that he has observed a most wonderful and pleasing change wrought by this simple process, and urges us to give publicity to the fact that this remedy is so easily secured. T. P. W.

Theory and Brackice.

M. H. SLOSSON, M. D., EDITOR.

A SUGGESTION.

The law "Similia" is both fundamental and differential in Homeopathy. However conflicting their views on questions of Medical Science, homeopathic physicians are united in respect to the supremacy and immutability of this law. It must govern in the selection of all remedies, and in the treatment of all diseases. The questions in regard to potencies, single remedies, or alternation of remedies, and intervals of administration—matters of experience simply—may elicit great diversity of opinion, without affecting the value and supreme authority of the law of similars in Therapeutics. If a given case require, unmistakeably, a particular remedy, it may be administered in the 3d, 3oth, 300th, or 3000th potency, and each repetition be in strict accordance with the demands of our organic law. It is not potency but similarity, that fulfills the requirements of the spirit and the letter of the law. If the disease be curable, the patient will recover, whether the 3d or 3000th potency be selected. only thing of real value in the case, and determinable only by clinical experience, would be the result, as to time. Under which of the named potencies would the patient soonest recover?— Bring the question to the clinical test, as furnishing the best illustration and most convincing proof of the superior efficacy of one potency, as compared with another.

Theoretically, a position may seem obvious and quite irrefutable, and yet fail altogether in the practical test. With the purpose of inviting attention to these points, as eminently worthy the most thorough and extensive experiment, we would urge our fellow practitioners to give us the results of their observations, and trial of potencies, from the lowest, through any gradation they may have employed, to the highest. Permit me to indicate the method of Report:

- ist. State the nativity, age, temperament and social status.
- 2d. The disease and symptoms.

- 3d. The remedy or remedies, and why? Potency, and why? And the exact mode of administration.
 - 4th. Progress, duration and termination of the disease.

In reporting clinical cases, everything essential to scientific exactness, should be definitely stated. Cases are sometimes reported so indefinitely as to be of little practical use to the profession.

The following case has been selected as an example of accuracy, and of importance, as showing the efficiency of a single remedy, where indicated:

VARIOLOID.

Mrs. B—, native of Cincinnati, 33 years old, of nervo-sanguine temperament, the wife of a brick mason, and mother of three children, the youngest thirteen months old. Had a chill the night of November 10th 1871, followed by high fever, headache, pain in the back, and general erratic pains and soreness. Took some simple domestic remedies for a bad cold. morning, felt too ill to get up, remained in bed, took her Spirits of Nitre, and mixture of ginger and red pepper tea. fever at night, and increase of the other symptoms. Morning of the 12th sent for a physician, who, upon learning the above history, and perceiving some pimples on the face, diagnosed Varioloid. Patient told him her left limb was swollen, and looked like erysipelas. Upon examination, found her statement verified, with quite extensive patches of vesiculation, above the ankle. Also found a general eruption upon the body and upper extremities, like that upon the face.

Patient had been vaccinated when three or four years of age, but never re-vaccinated, and the mark was of the average character. Prescribed Rhus tox., 3^x, 6 drops to half a glass of water, and two teaspoonful doses every two hours, except when sleeping. Satisfied from the symptoms that it was a case of Varioloid, and strengthened in that opinion from the prevalence of small-pox in the city, though none in that vicinity. Rhus tox. was selected because of the vesicular eruption on the left leg, and the 3d^{deo.} potency because adapted both to the nature of the disease, and temperament of the patient. Learned that a sister had frequent attacks of Erysipelas, though the patient

Apprehended some trouble from this had not been affected. peculiar and very unusual, and early development of a symptom, that prognosticated a tendency to the confluent form of the disease, a form exceedingly rare. On the 13th found the patient doing well; eruption putting on the ordinary appearance at this stage, and only a slight extension of the vesiculation, so crysipelatoid on the left leg. Continued the same prescription. On the 14th patient comfortable, very little fever, and the eruption remaining distinct; a full crop on the body, less on the face and upper extremities, which usually characterizes Varioloid, as distinguished from Variola. The vesicles beginning to be depressed in the centre, and the erysipelatoid appearance of the left leg becoming much less; skin wearing a lighter color, and contracting into little wrinkles, and the vesication drying. Continued same prescription, every third hour a dose instead of every second. Directed the puncturing every seven to eight hours of the vesicles about the face, pressing out the sero-purulent accumulations, and application of carbolated glycerine with a camel's hair pencil. As the vesicles were quite large, with very red bases, pitting would be the result of the purulent action, unless arrested. To effect this, the carbolated glycerine was ordered. as stated. One drachm of Carbolic acid to the ounce of glyccrine.

On the 15th, the patient doing well; but little fever and the vesicles on the face very greatly changed, apparently drying up. Directed that finely pulverized charcoal be mixed with the carbolated glycerine, making a paste, and keep the vesicles well covered with it, and whenever any seemed filling again to puncture and press out the pus.

Did not visit the patient on the 16th or 17th—sent the same medicine from the office, with directions to repeat the doses only every fourth hour—20 globules No. 40 to a half-glass of water. Called to see the patient on the 18th. The exsiccation of the eruption about the face being well established, and the same process beginning on other parts, prescribed Sulph. 6^x, 30 globules usual size, to half-glass of water, a dose every 6 hours for 3 doses, and continue this prescription for three days. This was the last prescription. The result was every way satisfactory—no pitting, and perfect recovery. The diet was princi-

pally bread and milk, or corn-meal mush and milk, as patient might prefer, or toast and tea.

This case is important in two particulars—showing the efficiency of homœopathic treatment, and the result of the single remedy plan, through the second and third stages of the discase. The Rhus seemed to control the early tendency to confluent form, lessened the severity of the 3d stage, and brought the patient safely through the stages of danger. Sulphur was administered to guard against constitutional sequelæ, and hasten the completion of the 4th stage.

The protective power of recent vaccination was shown in the exemption of the three children from an attack of the disease; youngest vaccinated when three months old, and the two older about three years before.

Disinfectant used was a mixture of salt and slaked lime, four quarts of the former to a half bushel of the latter. Some of it put in the vessel before using it either for urinating or stool, and taken immediately to the privy, and some of the disinfectant scattered into the vault every time the vessel is emptied, thereby securing an efficient daily disinfection of the privy, a matter that never should be omitted in infectious and contagious diseases. The protection of the family requires that it be done, either in this simple and always available method, or some other. In all cases of Varioloid, Variola, Scarlatina, Typhus, and Typhoid fevers, and Cholera, place a half-dozen plates or saucers, with some of the mixture in them, about the room, and renew every third day. The husband had Varioloid before marriage.

BRYONIA 200TH IN PLEURITIS.

Nov. 9, 1872, at 5 P. M., I was called to see Mrs. M.—. She had taken cold some four or five days before from exposure of bare arms out doors. Living several miles from the city, I had previously sent her Bry. and Phos. 3d 10, which she had taken for two or three days, with increase, rather than abatement of the symptoms. The patient was a brunette, slight, spare figure,

inheriting a tendency to phthisis from her father. months before I had removed in her case a distressing cough, of long standing, accompanied with a chill every sixth day, with Lycopodium 30th. On the evening above named, I found the following condition: respiration, short, difficult, and very painful; tendency to a dry, tight cough, which was with difficulty repressed; chilliness, alternating with flushes of heat; sharp stitches through the chest, pulse 98; tongue loaded to the tip with a heavy yellowish deposit; no appetite, and but little thirst. I dissolved a few pellets of Bryonia 200th in a half a glass of water, to be taken in teaspoonful doses every two hours. I ordered the patient to be put to bed, and hot fomentations applied to the chest. I called the following morning at q o'clock, when all the symptoms complained of the night previous had disappeared; there was neither cough, pain, fever, or chilliness; the tongue had cleaned completely, and she had eaten a light breakfast. She returned home the 10th inst., without further medicine, and has had no return of cough.

I have never seen such a complete change before result from drugs of any potency, or spontaneously, although I am in the habit of prescribing the 30th and 200th, and am often surprised at the results which follow. In the case above related, I had no idea, when I first saw it, that less than a week would be required for treatment. Was it confidence, coincidence, or cure?

J. D. Buck.

CLINICAL NOTES, ETC.

Dr. C. H. THOMPSON reports cases in his practice showing he has made the important discovery in medicine, that Aconite is a very efficient antidote to the secondary effects of Morphine, and that it will eradicate the habit of using that drug. [Meanwhile we suspend judgment, and wait for confirmation.]

DR. CHAFFEE reports a case of hoarseness [What kind?] cured by Natrum mur.

The Doctors have the travelling rage. The capitals of Europe are filled with them.

SUPPRESSED GOITRE is reported followed by epilepsy and paralysis.

BURDOCK has a great reputation for curing boils (Furunculi.). It is taken in infusion. Why should not the remedy be proven?

Dr. Foote reports a case of retention of urine, patient a boiler maker; enlarged prostate; couldn't pass a catheter. (It is always thus when a physician cannot pass a catheter. The prostate is sure to be enlarged.) Gave Gelseminum 3d, with immediate relief.

DR. MERRYMAN reports the case of a boy troubled with diurnal and nocturnal enuresis. Urine dark colored and offensive. Cured with Gelseminum.

DR. FOOTE is in trouble how to treat a *Dutch child*. Owing to the nationality of the patient, or some other cause, it is suffering with terrible pain over the right eye, the pupil being considerably enlarged.

SOMEBODY enquires if the liquor amnii has anything to do with development and fleshiness of a child? Is it protection merely, or also nutritious?

DR. W. B. STILLMAN (Investigator.) had a case of epilepsy. Miss J—, æt. 14; hair, eyes and skin light; tendency to obesity; intellect dull; sleep, very sound in the morning; face pale; appetite for sweets; upper lip swelled in the morning; abdomen distended; menses every five months since twelve years old; epileptic spasms at night, while sleeping, since five years old; variable as to time, not always coincident with the menses. Each attack increased her imbecility. August 1870 she began the use of Calc. carb. 6x; continued the remedy one month. Result, recovery of body and mind, and no spasm for nearly a year, being up to date of report.

DR. WM. F. BREYFOGLE sees his way clear to answer this important question—"What shall we do?" "By better provings of our drugs, and a closer study of pathology. * * A closing up of two-thirds of the colleges; spending the money (what money and whose?) in dispensaries and hospitals where not theories, but practice can rule." This reminds us of the man who believed in the doctrine of total depravity if he could be allowed to pick his men! We believe in Dr. B.'s plan if we

can only be permitted to designate the colleges that are to be shut up, and the money that is to be spent.

THE Am. Jour. Hom. Mat. Med., etc., etc. is dabbling in Darwinism, the Feb'y number having several articles on the subject. Tut, tut; this will never do for a Philadelphia journal. Where is Dr. Toothacher?

DR. GEO. W. WILLIAMS recommends sand in place of bran in the fracture box. "It is better than bran for the following reasons: It is much cooler; is a better disinfectant; when wet it will stay where you pack it, and hold the fracture in place better than any splint, and your water dressings will pass off through it readily, without detriment to limb or clothing."

T. P. W.

Chemistry, Pharmacy, etc.

E. W .FISH, M. D. EDITOR.

ON SOLUBILITIES.

There is a peculiarity in the latter-day development of philosophical inquiry which deserves the attention of the student. It is this: The labors and researches of the writer and experimentalist are mainly directed to the elaboration of facts, theories and books, to complete the various branches of the sciences which have sprung from the main trunks, while these trunks, or bodies, or bases' are neglected—or regarded as axiomatic in construction.

An illustration of this is seen in the wonderful zeal exhibited by many modern scientists to mould the beautiful harmonies of creation into an expression of a universal law denominated, in a general term, "evolution;" whereas the ultimate deductions of those harmonies have barely taken them beyond the possibility of the common origin of species—leaving the grand divisions of the animal kingdom deeply shadowed in misty materialism. And this beautiful theoretical temple is built immediately over the grandest science of all—Geology—and not upon its merits as a science, but upon a plausible deduction drawn from it by sweeping hypotheses to begin with. Thus, upon the confines of science, in Natural History, "Evolution" is developed, while the remarkable deductions from the study underlying it remain unproven.

We acknowledge that evolution has but little to do with the "Solubilities;" we refer to it to illustrate the fact that the weight of scientific labor to-day, is upon the periphery, while the centre is suffering from neglect. During the past ten years great labor has been spent upon the "Solubilities of Substances;" and we have results in such monuments of labor as Elliott's Dictionary. But no one, to our knowledge, has taken the subject of solution and developed the philosophical relations thereof, or in other words, the "why and wherefore."

Substances being soluble in certain menstrua, is regarded as a central fact in science, long since laid by among the things above and beyond discussion; the point of study and research being the amount of such solubility, and not the very wonderful change which takes place by solution, and the "very undiscovered" cause thereof.

Now let us take this antiquated fact off from its "high-toned" shelf, and, handling it carefully lest the philosophers quarrel with us, inspect the subject of Solution, and see if science has not been resting on one rotten pillar.*

Let us examine the physical features of a solution. In its almost universal form, there is a complete annihilation of physical properties; the attraction of cohesion, holding the atoms of the substance (or the molecules), in close relation to each other, and thereby constituting a distinct entity, is smoothly, quietly, easily destroyed, and the form of matter is lost; opacity, with frequently the finest shading of color, is destroyed, and as by magic even the vesture of things beautiful disappear; chemical rela-

^{*}Pagehot says, vide "Physics and Politics," that he who states new ideas is called "flighty," and in trying hours when weight of character is needed, he will be neglected. Hence, we touch this theme VERY fearfully.

tions* change, for the dissolved agent now becomes a reagent, with chemical affinities quickened and exalted to such an extent that reaction immediately follows the introduction into the same menstruum of a suitable agent. There are thus strange features connected with this solution. Natural Philosophy tells us that a solution is where the adhesion between the molecules of two substances is greater than the cohesive attractions existing between the molecules of the substances themselves.

The chief beauty of this definition lies in the fact that if true it is wonderfully apt, and like the Rule of Three, bridges the horrid chasm of reasoning which remains when it is taken away. The attraction of adhesion is here supposed to combine wonderful attributes. The world has accepted the definition for years, and it does not lie particularly in the way of our reasoning to follow; but it does lie very near that asphyxiated "centre" of science, and we have a terrible itching to stir the thing up, and see if there are not a few physiological problems keyed up on the same note, and hidden behind its sounding board.

If the attraction of adhesion includes all atomic attractions existing between unlike atoms and molecules then Solution may come under its broad classification. But such a general definition of adhesion would not only be unscientific, because it would fail to give the desired classification of natural forces, but it goes vastly too far, for under such a ruling chemism would be but adhesion, and all the gradations of chemical affinities but varieties of stickiness.

Let us understand then that adhesion is that surface attraction—"acting at insensible distances"—which comes under the general term adhesiveness. This point may seem unnecessary, and forcing a useless verdict; but hold on; no verdict is called for that other facts and natural phenomena will not secure. There are palpable differences between adhesive and solvent powers.

Among the peculiar properties of a Solvent is the fact that heat quite generally increases its powers in a remarkable degree. This is quite notably the contrary in adhesion, and in fact, all the



^{*}By the term "solution" we do not refer to those chemical solutions in which the substance dissolved and the menstruum enter into combination, as when Zinc, dissolved in Hydrochloric Acid, becomes Chloride of Zinc. Reference is solely made to simple solutions.

other supposed atomic attractions are lessened by heat. The attraction of adhesion, in all plainly recognized instances, does not alter the character of the *mass*, either physically, chemically, or vitally, but Solution does in all three respects. There are many reasons, drawn from the physical phenomena, which tell us that Philosophy has not accounted for the mysterious powers of a solvent by calling it a triumph of adhesive powers over cohesive—a mastery obtained by every cabinet-maker in the country when he glues his work so well that the wood parts before the gelatine. The definition is clever, but will not bear inspection.

The truth is, there are some strange things about a Solution, not often recognized by the idealistic eye of the age; and a clear view of them might lead into a channel of discovery of remarkable breadth and depth.

Did it ever occur to the reader that the power of solution is not only a force in nature superior to adhesion and cohesion, in fact paying no attention to compact, but that it defies gravitation? In an ordinary pail of clear, cool water, containing say six quarts, can be dissolved rather more than 24 pounds of the crystal solid called sugar. The twenty-four pounds still possess their hold upon gravitation, as evidenced by the increase in the weight of the pail's contents. Yet the sugar remains invisibly suspended, indicating, by the way, that a solution is no mechanical mixture; for were it a mixture, gravitation would find no more impediment in the limpid fluid for the dissolved sugar than it does for the sugar that sinks to the bottom after "saturation." A mixture constitutes a mechanical suspension of particles of matter among those of another kind of matter, without change of physical characteristics—possibly with the aid of adhesion. But it teaches a more important lesson than that Solution is more than a mixture; it gives us an insight into the amount of power exhibited by this pseudo-adhesion, Solution, For if we might suppose, (and we certainly may not) that atomic accommodation of space is ample, we have the measure of this new and undefined force in nature. It would be represented by the overcome cohesion + 24ⁿ pounds. But unfortunately for such direct figuring, there are a few obstacles. The relation of size between the permeating molecule, and the molecular interstices whence it intrudes, doubtless modifies the measure of the multiple 24. Again, the probable vacuity presented by the interstices presents an intensified "capillarium" to draw upward and inward the lesser molecules. And again, the thoughts to follow on the possible relations of gaseous diffusion, and its very clever law, may argue against the measure of either adhesion triumphant, or cohesion and gravitation subservient, being the reason of this wonderful force of solution. Of course the idea of a difference in the size of atoms would disturb the law of Ampere', upon which the entire structure of the new chemical nomenclature rests. But of course our philosophy has the unpretentiousness of youth, and will but the Existing-already as little as necessary.

We close this month in a forest of shadowy thoughts, confident that the "principles and practice of Homocopathy" are nearly related to the closing deductions hereafter.

Fish.

Department of Surgery.

S. R. BECKWITH, M. D., EDITOR.

ULCERATIVE ABSORPTION OF BONE RESULTING IN SPONTANEOUS FRACTURE.

This malady, usually described as a form of necrosis, and treated of under the acute and chronic forms, would—from its frequent occurrence, seem to require a more complete and thorough study on the part of the surgeon, on account of the great difficulty in forming a correct diagnosis. Several cases met with in the last few years will serve to illustrate some important features of this disease, and aid in determining its presence.

It is a matter of regret in regard to the first case that a more complete history can not be given. This arises from the fact that in making transfers from one U. S. General Hospital to another, during the war, only the most meagre medical and surgical histories were transmitted. It derives additional interest from the fact that the most skillful surgeons failed to recognize the condition of the patient until after his death, it was revealed by a post mortem examination.

The second case I shall report is that of a well-known citizen who had from four to six physicians and surgeons in consultation at different times, and yet failed utterly in getting a correct diagnosis, or any approach to it, until disclosed by the knife after death.

The third and fourth cases reside in Cincinnati, and are still living.

In speaking of necrosis. Craigie says that certain forms of periosteal inflammation give rise simultaneously to osseous deposit and ulceration, or caries; and "that these conditions may be either acute or chronic," and "that the causes may be apparent or obscure." And in reference to fracture from necrosis he says:— "It is often spontaneous in its origin, and its appearance cannot be traced to any external cause. In other cases it is observed to appear some time after a blow or other injury, in which the bone has sufferred considerable concussion."

A question has been raised by writers as to whether all the matters removed in the process of absorption of bone tissue are ever entirely removed from the system by excretions or otherwise. This has been successfully met by the demonstration of pyæmic poisoning and the formation of abscesses in important organs and viscera. The question as to whether an external opening was absolutely necessary to relieve the system of matters formed by the solution of the tissues, it seems, has long since been decided in the negative. Two of the cases hereafter to be mentioned, tend to the maintainence of that position—both proved fatal. The third case presented an external opening with removal of large pieces of necrosed bone, and recovered, although in a deprayed constitution. The fourth case is still under treatment.

Case 1st.—A. G., a private in an Ohio regiment of volunteers, company and number of regiment not now remembered. Aged 35. Was received into Crittenden U. S. General Hospital, at Louisville, Ky., about the middle of December 1864, from number Four, U. S. General Hospital at Nashville, Tenn.

He stated that he had been troubled with quite severe pain in right hip and thigh for about two weeks. One week of this time had been spent in the Hospital. The pain was of a gnawing and burning character. Strong pressure upon great trochanter and upper third of thigh caused pain which continued a long time, indicating periosteal inflammation. This condition came upon him without any traceable cause. He had suffered no injury or blow, had made no long marches, nor sustained any unusual exposure. but had drilled every day and performed all the usual camp and police duties until his admission to Hospital No. 4, or one week before admission to Crittenden Hospital—at which time he was unable to move the limb without assistance. His pulse now ran from 110 to 112 beats per minute in the forenoon, and 120 in the evening. The tongue was coated with a yellowish brown fur; it was dry and parched; constantly craving water which gave little relief. The skin was of a dark brown, parchment-like appearance, covered with moisture day and night. The urine was copious, depositing a large quantity of yellowish-red sediment-was not examined by tests so far as known.

All the surgeons who saw the case were in great doubt as to the character of the disease. Some thought it a neuralgic condition of lesser sciatic, obturator, or gluteal nerves. increased in severity from day to day, and was greatly aggravat-Some of the more knowing ones ed on the slightest motion. among the surgeons suggested that this man was a malingerer. seeking to escape duty, or procure his discharge from the service. Several consultations were had with surgeons from other hospitals, and with the Medical Director, who is now a resident of this city; but no satisfactory conclusion was reached, until ' one night about 11 o'clock, the writer acting as Officer of the Day, was called into the ward where this man had been lying, to see him, the nurse stating that G. had broken his leg. too true. In attempting to use the bed pan a fracture of the right femur had taken place at the upper third. He stated that he had been bearing no weight upon it, but was raising himself upon his elbows and left leg, when he heard it break, or something give way with a snap, and the leg turned outward. ing late at night, and no other surgeon in the Hospital, the limb

I—1—4

was placed in a comfortable position, and received no farther attention until morning.

All were surprised at so unexpected a turn in the case, and were quite incredulous as to the circumstances under which it occurred, until it was confirmed by the nurse who was in attendance at the time. No one supposed that ulceration of the bone was in progress, or that a fracture was likely to occur.

This man died about two weeks afterward, of diphtheria. A post mortem disclosed diphtheritic exudation throughout all of the air passages; extensive steatosis of the liver, with numerous abscesses filled with pus. Both kidneys were found in a similar condition. The right kidney was greatly enlarged, weighing 5½ ounces, and was a mass of granular degeneration.

Three inches of the upper extremity of the right femur had disappeared, except the head, which remained in the acetabulum and was intact, leaving a cavity which would readily have contained a pint of fluid. A few pieces of necrosed bone, and about two ounces of fluid bloody pus were all that remained of the mass of bone, muscle, fascia, and cellular tissue once occupying this space.

PATHOLOGICAL CONSIDERATIONS.

This man enjoyed perfect health until about the 1st of December, 1864, when he was taken suddenly ill of a malady not recognized by the most skillful surgeons. The disease run its course rapidly, producing a solution of the femur in about four weeks, removing a large amount of solid material without an external opening of any kind up to the date of his death.

The peculiar color of the skin; continued and persistent high pulse; dryness of the tongue, and thirst, point to some profound constitutional disturbance.

The detritus resulting from the destruction of a large amount of tissue has been disposed of by absorption. In this connection we find some of the organs intimately concerned in removing the waste material from the system seriously impaired, and passing through conditions of disease, which we are led to believe may have resulted from their efforts to relieve themselves of the poisonous material thrown upon them. Precisely what connection there is, if any, between the disease of the bone we have been discussing, and the disease of the kidneys and liver we are

not prepared at this time to indicate; but that there is some such connection I trust will not seem unreasonable when we have completed these reports.

The other cases of similar import will in due time be reported to the pages of this journal.

Book Aokices.

A Manual of Histology, by Prof. S. Stricker, of Vienna, Austria. American Translation, edited by Albert H. Buck, Assistant Aural Surgeon to the New York Eye and Ear Infirmary. 431 illustrations. New York; Wm. Wood & Co. 1872.

No better sign of the times can be furnished than the fact that there is in this country, a demand for a comprehensive treatise on histology, and that the demand should be so fully met by the translation of the very exhaustive work of Prof. Stricker. Histological investigations, formerly regarded as a special study, to be followed only by the few who had both and special adaptation for the pursuit, have more recently come to be regarded as essential adjuncts to the science of medicine, at once the most interesting and profitable of its collateral departments. In fact, it is rapidly assuming the position of a fundamental department, side by side with anatomy and physiology. Regarding the organism with Virchow as "a sum of vital unities", the nutrition, growth and development of these vital unities becomes essential, and fundamental, to a comprehension of the structure and functions of the organism. Observation and microscopic examinations have done much toward establishing histology as an exact science. However much observers may differ in opinion concerning certain phenomena observed, there is a general unanimity with regard to the ultimate structure and arrangement of parts. And as anatomical knowledge paved the way for a comprehension of the physiological action of organs, so is histology preparing us to comprehend the genesis of tissue, and initial act-

ivity. So rapidly indeed is this rich field being upturned, and such wonderful discoveries of the profoundest secrets of organic nature are being made, that we have only time to glance at the record of one discovery with reverential awe and bated breath before another is announced, and greedy to catch a glimpse of all these treasures we are in danger of retaining none, and are disposed to cry forbear! and almost pray for a good old fashioned Papal Bull to stop these busy fellows—the Scientists, at least till we can "catch up." We must be content, however, to hang on to the tail of-Science, not the bull, and try and keep some where in sight of the advance, even if we cannot wear full regimentals and march in the front ranks. We can attempt no extended review, at this time, of the work of Prof. Stricker and his colaborers, unquestionably the most complete foreign treatise on the subject. Commencing with a treatise on "General Methods of Investigation," Prof. Stricker contributes also a paper on "The General Character of Cells" and Development of Simple Tissues," and the balance of this extensive work of over eleven hundred pages is contributed—to use the editor's words—"by the best experts of our time" including Th. Meynert, F. Von Recklinghausen, Max Schultze, W. Waldeyer and others. The American Translation is edited by Albert H. Buck, assisted in the extensive labor of translating so voluminous a work by Henry Power, of London, and some of the best talent in the profession of New York and Boston. How closely the original text has been rendered, we have no means of judging beyond the guarantee afforded by the names of its well known translators; but we have no work which deals so extensively, and so systematically, with the structure of organic tissues. So far as we are able to judge every subject familiar to histologists is ably represented and finely illustrated. Even for the general and non-professional reader the work is full of interest and delightful instruction, and the time is already foreshadowed when histology will form a part of the course of instruction in high schools and academies. In the mean time the physician can hardly be regarded as up to date, who has not a fair knowledge of histology. The rapidity with which works of this character are being issued by its enterprising publishers, Wood & Co. of New York, bespeaks a confidence

in the professional reader, shows an increasing demand for scientific literature, and a willingness on the part of the pubishers to meet the demand.

Buck.

The Microscope, and Microscopic Technology; by Dr. Heinrich Frey; translated by Geo. R. Cutter, M. D., from the fourth and last German edition. Wm. Wood & Co; N. Y, 1872.

Although we have several very extensive works on the Microscope, designed for both students and practitioners of Medicine, still there seems to have been a demand for still another, which this English translation of the work of Dr. Frey will meet. The number of physicians and students, who in hours of leisure, or in the pursuit of systematic investigations become acquainted with microscopic revelations is already large and constantly increasing, while the number of those who could consult such works as that of Dr. Frey in the orignal is very small.

We are therefore under obligations to Dr. Cutter for his translation and no less to Messrs. Wood and Co. for this elegant edition, which so extends our resources in this very important branch of physical science.

While Dr. Frey deals less with lower forms of organic life, than does Dr. Carpenter in his admirable treatise, in the department of technology he furnishes a large amount of material, the need of which could not help being felt by those who have not been drilled in microscopic manipulation, and which until recently no well applied effort has been made to supply.

In typography the work is gotten up in a manner to do honor to its well known publishers; and with its splendid engravings leaves nothing to be desired in this direction.

As a manual of histology even without the aid of the microscope the book is well worth possessing. No physician or student of medicine can afford to be without it.

Buck.

Transactions of the Twenty-fifth Session of the American Institute of Homeopathy. 1872. Robert J. McClatchey, M. D., Sccretary.

This annual volume is the peer of its predecessors. We could

hardly expect anything better, because all that typography can do has of late years been done to make this work perfect. There may be, and probably is, some difference in the quality of the contents. But this number compares favorably with any that have preceded it. The Secretary has performed his onerous duties well, and deserves our thanks. There is, we notice, some petty sophistication in the reports made by one of the Cleveland delegates that would, if brought to light, make the cheeks of the gentleman in question blush with shame. The discussions reported contain the usual amount of small talk. May we have something better next year?

Renal and Urinary Organs; By D. C. Black, M. D., etc. Lindsay & Blakiston.

We regret that we have not space to enter upon a thorough criticism of this book. From preface to appendix it is full of objectionable features. We do not by this mean to be understood as denying that there are in it many important practical suggestions. It is a work that will be read with interest and profit by the profession. But its many valuable points will hardly shield it from adverse criticism. The author has a pet theory in pathology, and his book is evidently written to prove the correctness of his opinions. Besides he has enunciated his views in a pamphlet "On Therapeutics and Disease and elsewhere," and he now proposes to show how they have been in various ways corroborated.

His idea, plainly stated, a thing not easily found in the book, is—that "a certain class of diseases"—no clew being given to the class, however,—arises "from a contaminated condition of the blood," "due to the presence of an adventitious compound in conjunction or in chemical combination with the natural excreta." Whether this adventitious compound is alike or unlike in these various kinds of disease our author does not say, and all he knows of its nature in any given case is that "the poison formed in the blood is probably some compound of sulphur and ammonia." MM. Bergmann and Schmisdeberg have discovered "a peculiar crystaline substance in certain forms of pus"—the

kind of pus seemingly a matter of no moment—which they have named "sepsin."

On this loosely stated theory, corroborated by a very doubtful and poorly defined fact, our author proceeds to "deduce the practical lesson that in such cases there was presented a manifest, rational indication for the employment of oxidizing agents in order to reduce such compounds by oxidation, to their ultimate, innocuous forms."

These points so explicitly stated in the preface, seem to be wholly forgotten in the body of the work, and the author goes on prescribing tonics, alteratives, counter-irritants and sedatives, in blissful forgetfulness of his pet theory. That he is learned is obvious by his free use of French and Latin—he even ventures occasionally to indulge in Greek. Doubtless if he knew any other language he would have given it an airing in these pages. But he hardly needed to use dead and foreign tongues until he had learned how to express himself clearly in his native English. Perspicuity is not a leading feature of this book. On many points we confess to hold grave doubts of the writer's meaning. Especially is this true of the pages garnished with French, Latin and Greek, the pith of many sentences evidently being hidden in the untranslated quotations.

The greater part of American physicians not being noted as linguists, will find themselves, in perusing this work, wholly at fault, from which nothing will free them but their Yankee guessing proclivities.

As a purely scientific work this book must rate very low. It but partially covers the ground its title indicates, and but one topic is treated of with any special fullness. Everything seems to be taken at random, and nothing discussed systematically. But the interesting feature of the book is the eloquent apostrophes of the writer. In the midst of sober discourse he is found frequently breaking into extravagant and startling specimens of rhetoric. A few extracts will show, to some extent, this not unpleasant feature of the work:

"Patients who are tormented with nocturnal emissions and cannot marry, are advised, forsooth, to diminish the secretion.

"'Go to the raging sea and say, Be still!' A man finds himself so circumstanced that he cannot marry. Nature has formed

him subject to the influence of certain organic functions over which he has no control. He is worried by an ungratified appetite, and he is considerately mocked by being told to perform what is nothing short of an absolute impossibility. As well tell a man with jaundice to diminish his biliary secretion, or the unfortunate victim of diabetis to arrest the diuresis which constitutes a notable feature of his disease.

"But how can physiology be reconciled with morality? Go tell the platform orators, Reform the tastes of the daughters of England, mortify their insatiable thirst for the worship of Mammon, give poor girls a fair day's wage for a fair day's work, remove those barriers to the state for which nature made man, and then these ardent social reformers will be at least on the right road for the suppression of prostitution; and declaiming nastiness from platforms, before mixed audiences will cease; if indeed these philanthropists will not argue (what they will perhaps at least thank me for suggesting,) that the Almighty made the entire body, but consigned the dominion of the sexual organs to the Devil! Among what class of the community is prostitution chiefly encouraged? Certainly not among the artisan class, with whom simple tastes prevail so largely, and where marriage is thus more frequently consummated, but among the higher grades of

"Suppress prostitution! Turn the Mississippi! Pluck Jupiter from the studded vault of Heaven! The canker is in society. Prostitution is an appanage of an advanced civilization. The attempt is Utopian and unphilosophical, while its causes are permitted to remain; and if possible, could not fail to be productive of greater evils."

society where nature is lost sight of amid the gaudy tinsel of art.

Treatment of Syphilis, with Subcutaneous Sublimate Injections. By Dr. George Lewin. Lindsay & Blakiston.

We shall never cease to be interested in this vexed question of the treatment of syphilis. Dr. Lewin's book is a very substantial addition to the literature we have upon this subject. Without stopping to discuss and repeat the "pros and cons" concerning the pathology of syphilis, our author enters at once upon his new method of treatment. This is by the hypodermic use of corrosive sublimate. The doses are comparatively small, and often repeated. The patients recover quickly, and there occurs but a small percentage of relapses. The observations are deduced from the treatment of upwards of 2000 patients. A large num-

ber of interesting cases are detailed. There are tables of results covering almost every aspect of those cases presented, showing that the utmost care has been taken in investigating results. And we are bound to say that the results are most astonishing. Dr. Lewin is Surgeon in Chief to the syphilitic wards of *La Charite'*, in Berlin, and his opportunities have been of a first-class order. His book is not pretentious in manner or size, and it will receive, as it deserves, the careful attention of the medical profession.

Manual of Microscopic Mounting; by John H. Martin. Philadelphia. Lindsay & Blakiston. 1872.

This is a neat large octavo volume of 200 pages and as the title indicates designed to furnish information for the preparation and mounting of microscopic objects. Instruction in this department is given in a clear and concise manner accompanied by numerous engravings, together with a large number of recipes for injecting, preserving, coloring, etc., etc. The work is well executed and will be found useful to beginners in microscopic studies, or as an adjunct to the works of Carpenter and Beale.

B.

Miscellaneous.

THE COMMENCEMENT EXERCISES

OF THE FIRST ANNUAL SESSION

PULTE MEDICAL COLLEGE.

At the termination of twenty weeks of arduous and pleasing labor, the college closed with appropriate exercises in Brock's Hall. At half-past seven in the evening a large company of friends filled the place to overflowing. Hon. Bellamy Storer, President of the College, presided. Rev. Dr. Moore opened the exercises with prayer. An able address was then delivered by

Rev. Isaac Errett. We are promised a copy of it for publication.

The Registrar, Prof. J. D. Buck, then presented the following candidates for graduation:

HENRY T. BAKER, Ohio.

GEO. C. GARRETSON, Ohio.

J. H. Lucas, Ohio.

H. G. Linn, Ohio.

W. E. Green, M. D., Ohio. R. D. Poole, M. D., Ohio.

L. J. Hunt, Ky. E. H. Price, Tenn.

GEO. D. JENNEY, Ohio.

The President, after an appropriate address, delivered the Diplomas, and conferred the Degree of Doctor of Medicine.

Remarks of the President.

GENTLEMEN—I cannot tell you how highly I feel honored by those who have appointed me to confer upon you the degrees which your Professors have said you are entitled to receive. You are the first fruit of their labors in this institution, and the Trustees and the public have a right to claim that in giving you the authority to practice the noble art of medicine, you will not disappoint our reasonable expectations. Remember that you are entrusted with a most important and noble office; when you burn incense upon the altar, take care you use no strange fire. Let it be your mission to look to that high principle to which you have been asked to trace all the power you have, in the cloquent and beautiful language of the gentleman who has addressed you this evening [Dr. Errett]. Take care that you avoid the wrangling. disputes which reflect no credit on the profession of medicine; let it ever be your effort to harmonize differences and elevate your Be true to yourselves, true to your patients, true to society, and true to your God. Let these be your aims through life, and you will not disappoint those who now send you forth upon your professional career, with their best wishes for your success.

After the conferring of the degrees, Dr. Beckwith read the following, which he remarked was highly gratifying to the Faculty of the College:

"At a meeting of the Trustees of the Pulte' Medical College, held on the 12th instant, on motion it was

RESOLVED, That the prosperous condition of the institution at the close of its first session reflects honor on the learned and energetic Faculty, who have so untiringly devoted themselves to their varied duties, assuring us they are united in the determination to promote the prosperity and usefulness of the Pulte' Medical College.

RESOLVED, That we may well be proud of all the professors

who have faithfully labored to vindicate the science of Homœopathy, in every department of the healing art, and trust that what has been achieved by them in the very infancy of this institution may strengthen them to attain for the future the reward of faithful service.

RESOLVED, That the Secretary of the Board of Trustees furnish a copy to the President of the Faculty.

W. L. EVANS, Secretary Board of Trustees."

In behalf of the undergraduates, Mr. Charles S. Williams delivered a most eloquent address, finely conceived and effectively delivered.

This was followed by an address by Mr. Henry F. Baker, on the part of the graduates. The effort of Mr. Baker, (or shall we say "Dr.") was received with merited applause.

Prof M. H. Slosson, after a brief address, presented the Diplomas of the Hahnemann Society.

Madame Rive', with her accomplished pupils, furnished an abundance of rare and enjoyable music. This part of the programme needs no praise. It was superb from first to last.

After Benediction, invited guests descended to the parlors, and to the number of about one hundred crowded the well-filled table.

- Prof. S. R. Beckwith presiding, read the following toasts, to which eloquent and pertinent responses were made:
 - 1. "Samuel Hahnemann."

Drank standing, and in silence.

2. "Prof. J. H. Pulte—the distinguished pioneer of Homœopathy in the west, and the founder of our school. We miss his genial presence, but do not forget his life-long services, his exalted, scholarly, professional and social standing. May he soon be restored to health."

Response by Hon. Bellamy Storer.

3. "Our Country—under her broad ægis all good things prosper, and Homœopathy not among the least."

Response by Geo. B. Sage, Esq.

4. "Pulte' Medical College—The latest, but not the least of the noble institutions erected to promulgate and perpetuate medical truth."

Response by Prof. S. R. Beckwith.

5. "The Faculty of the Pulte'—They have labored with well deserved honor, and are crowned with abundant success."

Response by Prof. J. D. Buck.

6. The Graduating Class—The pioneers of a long line of successors, who will proudly march in the steps of their predecessors."

Response by Prof. G. Saal.

7. "The Undergraduates—Hopeful candidates for future honors. May we meet them again around this festal board."

Response by Prof. N. F. Cooke.

8. "The Learned Professions—May they emulate each other in their devotion to truth."

Response by Rev. Dr. Jeffrey.

9. Our State and National Societies—They deserve our hearty support, for they give a high character and a wide influence to our profession."

Response by Prof. M. H. Slosson.

10. "The Ladies, God bless them—They are all homœopathic; they cure what they produce—disease of the heart."

Response by Prof. T. P. Wilson.

Prof. Cooke offered the following volunteer toast:

"Woman—The exemplar of her rights in Madame Pulte'. She supplements her husband in every good and noble work, and now tenderly watches beside his bed of suffering."

Prof. Cooke's response to the seventh toast was as follows:

Post Prandium.

Last evening, as snug in my study I sat,
I heard quite a noise, which I thought was the cat;
When soon—imagine kind friends my surprise—
A bandage was quickly drawn over my eyes, [you, While a voice said, "Fear not, sir; no harm shall come o'er But the ghost of old Galen himself stands before you!"
"Not much," I bethought me, "'tis some undergrad,
Or may be some 'plucked one'—all weary and sad,
Who has come to torment me for 'screwing' him so;
But then, my fine fellow, you'll find its 'no go!"
I feigned to be scared, and replied with a groan,
"I pray you begone sir, for since you have thrown

O'er my optics this bandage. I wish for a light, That I may of Galen have only one sight. Then off came my blinders—and down came my jaw— For the queerest old fellow that ever you saw Stood there right fornenst me-all eveless-instead. Two little round holes in a great fleshless head! Shone phosphornecrotical, omnoptic, magnetic! Horripatatio, hypolepsiomaniacal, phrenetic! Expresses in plain language the state in which this chick Immobilitate, and almost cysterethismic, Awaited the most horrid words which I Felt sure must issue from that cavity Wherein no glosso-pharyngeus did control! Not so-but his phalanges held a roll Of paper, which I, prehensile, siezed, And here it is—I'll read it if you're pleased:

GALEN TO NICHOLAS.

You're right, old boy, just give 'em fits-These undergrads, with little wits! Let them go try Diplomas buy At Doctor-shops that deal in slops! But I've a few choice names writ in my book, For whom I wish your ballots, Dr. Cooke. And first, there's Walton,—he's a good, smart man; (A name on which for rhyming there's a ban.) And oh! as well for learning as for looks, Be sure and cast your vote, in full, for Crookes? There's Williams, first and second, and eke a Ford, The ship of Science must have them aboard. And venerable Whitelock, too, and Jeffrey, Must go aboard, I say so, each and every. An Earnest, and a Strong—well yoked indeed. One Williamson, he too was in my screed, And Thompson, (with a "p"), ship double decker-When well embarked, be sure you'll need a Recker, For on a far-off coast, the Prussians Shell'd on-A seeming paradox they made—'twas well done, For they have proved in Camp, and Fort, and Trench, MIRABILE DICTU—all Franc(e) is, not French.

Mrs. Dr. M. A. Canfield (Reporter.) has a "cure for the divorce mania." She wants the government to establish "a marriage bureau." "I would have a marital board formed of an equal number of men and women, the best brain of the country, especially cultured in the sciences governing marriage, and they should grant license only to those physically and mentally adapted." Next.

Dr. C. W. Breyfogle has removed to San Jose Cal.

Dr. W. L. Breyfogle has returned from Europe and resumed practice in Louisville.

CLEVELAND COLLEGE—LIST OF GRADUATES.—H. H. Lyon, Joseph C. Anderson, T. G. Barnhill, Geo. G. Biggar, H. E. Beebe, A. Gleason, M. L. Green, G. T. Harding, W. L. McCreary, Will. Murdock, C. F. Park, T. F. Spittle, A. E. Watson, R. W. Walters, Kate Parsons, E. W. Bryan, M. S. Clarke, W. D. Clarke, A. E. Elliott, H. A. Fick, J. T. Furlong, W. G. Hamilton, W. L. Parmenter, N. H. Hariland, C. Hickox, O. Q. Jones, O. W. Lounsbury, M. Stone, L. T. Van Horn, J. Wright, A. M. Woodruff, D. G. Whiteley, J. Wilder, C. H. Waggoner, C. B. Currier, M. D. adeun., I. D. Massey, M. D. adeun., A. O. Blair, M. D. Hon.,

By press dispatch we understand that the Michigan Legislature has granted the University \$50,000 without the Homœopathic Proviso. If true, this is a great misfortune. Want of harmony worked disaster there.

Articles appearing in the Advance without a signature of any kind may be charged against the General Editor.

We call the attention of our readers to the fact that Messrs. Geo. E. Stevens & Co. have a very large stock of Medical and Scientific works, and they are an excellent firm to deal with.

Among Homœopathic Pharmaceutists none stand higher than our friends Smith & Worthington. Their preparations are reliable, and their stock complete.

If you need surgical or dental instruments send to Max Wocher. See advertisement.

A bill was recently introduced into the New York Legislature to incorporate a "College of Anæsthesia," to "impart special instruction to medical and dental practitioners in relation to the science of applying anæsthetic agents in surgical operations." Here is what a prominent N. Y. journal says of it:

"Forasmuch as every medical student in a respectable school is familiarized with the use of anesthetics, in hospital wards and lecture-room, enjoying ample opportunities to gain thorough theoretical and clinical knowledge thereof, from the most renowned teachers, we may be permitted to doubt whether the proposed new corporation could fill a higher function than perhaps to furnish a firm name under which a profitable tooth-pulling business might be conducted. Pennsylvania, with its fraudulent diploma shops, has furnished a striking warning against the loose manner in which irresponsible "colleges" are chartered by State Legislatures: and if our Albany law makers will take the trouble to enquire they will discover that New York City possesses first-class medical schools, with large and distinguished faculties, wherein is taught every thing essential to the finished education of medical practitioners, leaving nothing to be done by special enterprizes with high sounding titles, which are commonly gotten up as cloaks for the sale of quack nostrums, or even for baser purposes.

One of the most celebrated physicians in Philadelphia, it is said, eats two raw apples every evening before he retires to rest, and thinks they not only supply food to brain, but have a tendency to keep his digestive system in good order.

A lively small-pox patient, one Minton by name, in an English Hospital, being weary of the monotony of his temporary quarters, followed the hearse out of the gate, visited the taverns of the town, and finally came back in a spirituous mood—drunk.

We fear there is decay in that spirit which formerly prompted the organized proving of our agents. Upon the systematic proving of our remedies rests Homeopathy! Nothing is yet attained—compared to what must be attained-notwithstanding our solid volumes -: n order to give Homœopa thy a fixture in science, and force its acceptance by the world from system atic deductions. And resting so soon? There are students who have graduated this winter who in grateful return for all that Homeopathy has given them, have never proved a single drop, never twitched under a single pain, to add to the volume and purity of the fount from which they draw sustenance! A rew graduates who never have proven a remedy, but have received the honors of the profession? Show us how few are they who have, and how many are they who have not! Not only students are thus spiritually dead, but the great body of the physicians are in the same condition. The physician is more to blame than the student. But sooner or later a "revival' must come, and the sacrifices of personal comfort which

accompany thorough provings must not be crammed with the pith which stuffs conceit, but the positive results which fulfill the demands of science. Provings we must have, and not isolated provings only, but class provings in which the universally present symptoms may be recognized. Devotion is wanted.

Scientific Lectures.—Professor Gerhard Saal commences a course of Scientific Lectures in the lecture room of Pulte Medical College, on the evening of March 3d. The course will consist of thirty lectures on Light, Heat, Electricity, Magnetism, and kindred subjects, profusely and beautifully illustrated with experiments. It is no small gratification to know that we have one among us so thoroughly qualified to present these popular topics in a manner not excelled by Tyndal, Huxley, and other noted scientists.

I place myself in opposition to the laws of my being, only when I force myself into an authority which I do not need. I would open the way to nature, pointing to nobody but myself for the authority which if God has not given, I am the first one that has been born without a Father,—without a soul. As surely as one lives at all, so surely he lives, moves and has a being in the great universal spirit. Prof. Kirby

MEDICAL JOURNALISM is a thing of the future. Political and religious journalism is but a thing of yesterday. All newspapers were dull and prosy, only a short time ago. But most of them have caught an inspiration from the journalistic spirit of the age. They are therefore both readable and successful. Medical journals are numerous and as uninteresting as they are plenty. Few of them furnish sprightly and enjoyable reading. It seems to us that something might be done toward bringing a new era of medical journalism.

This number of the "CINCINNATI MEDICAL REVIEW" is our initial effort. Whatever else you have to say about us—don't call us stupid! We mean to have a live, spicy iournal, suited to live wide awake men and woman. If we die in the attempt, somebody will doubtless make it succeed.

Erratum.—On page 42, for W. F. Breyfogle read W. L. Breyfogle.

THE

Cincinnati Medical Abbance.

VOLUME I.]

CINCINNATI, O.—APRIL, 1873.

[NO. 2.

Subscriptions to the Advance should be sent to Dr. T. C. Bradford, P. O. Drawer 1284, Cincinnati, Ohio.——\$3.00 a year, in advance.

All communications for publication should be addressed to the General Editor, "T. P. Wilson, M. D., Corner 7th and Mound Sts., Cincinnati, Ohio;" or direct to the Editors of Departments.

All business communications, relating to the publication or to advertising, should be addressed to Dr. E. W. Fish, 148 West Fourth St., Cincinnati, Ohio.

"FRATERNIZATION AND HUMANITY IN MEDICINE."

Dr. W. H. Watson, of Utica, N. Y., is the distinguished champion of a grand scheme of fraternization. He has an ally in the *Medical Union*, just started in New York, which is a journal designed to bring about a speedy millenium. All medical schools are to be henceforth as one. We are to have no more sects, no division into schools, but an immense Pan Medical System, including everything and everybody that is respectably medical. This reminds us that in various parts of the world the same attempt is being made in regard to the various religious sects. They are to be immediately united under one head, and all gathered into one fold. And the same thing is being done in political matters. Kaiser William is the champion in this department

I-2-1 ·

and he has a very summary method of bringing about a unity of states. In fact, railroads, telegraphs, steamboat lines, etc., etc., are being subjected to the same attempts at consolidation.

Now one feature about all this is—it lacks novelty. never was a time when some one was not affected by the same Bad as the world is, love, concord and creditable impulse. peace will reign in human hearts. History shows that in all ages fellowship and unity have been made the watchword of a certain class of reformers. That these benevolent minded philosophers have not succeeded is clear from the fact that a vigorous attempt is still being made to fraternize diverse and opposing sects that have existed and still do exist in spite of all argument to the contrary. Another feature of this case is that it forms a part of a wide spread influence affecting the world at large. Other departments besides medicine are being vigorously attacked by those who hold to unity as the chief cardinal vir-It is well for us to take this philosophical view of things, lest we be carried away with this particular effort as being something new and before unheard of. Besides, unless we comprehend its true import, we may be led to anticipate more than we shall realize out of this fresh attempt to harmonize and unite these different medical schools.

But what may we really expect as likely to result? one who has read Herbert Spencer's philosophy, wherein he treats of the law of development, must know that development has everywhere been from the homogeneous to the heterogeneous. Both in the physical and mental we have constantly advanced from the simple to the complex. Complexity therefore marks a higher state of development. As we rise in the scale we find the lower constantly differentiating into the higher forms. As we descend, we find everything becoming more and more homogeneous. It might require a long argument and a multitude of illustrations to make this clear to some minds, but we lack the space. A man who follows the kindly impulses of his heart rather than the sounder reasonings of his mind, generally fails to appreciate the facts of Nature, which stand counter to his impulses. If we could always see just how Nature does her work and carries out her plans we might have reason to alter our notions very materially. There

is good reason to say that, all excellence comes through diversity, and that unity tends to stagnation and death, and that therefore we don't believe the various medical schools will be or ought to be brought into union. With the gentlemen engaged in this work we are in special sympathy; we applaud their endeavors, but they might as well fight the stars in their courses. The enterprise is based on a false philosophy; it does not accord with Nature's processes, and must therefore fail. It will succeed in isolated cases, and indirectly bring about an era of good will, but fraternity and unity never.

Dr. Watson and his protege have our best wishes, and in all kindness we present them this brief criticism.

EDITORIAL NOTES.

A LIBERAL MEDICAL ASSOCIATION has been formed by the physicians of the various schools at Oil City, Pa. They put forth the following manifesto:

Whereus, The profession of medicine has become divided into various systems, characterized by bigotry, sectarianism, and exclusiveness on the one hand, and of arrogant and unprincipled quackery on the other;

And Whereas, The spirit of liberal progressive medicine courts members of the profession with liberal minds, prepared to receive and adopt the principles of true medicine,

Resolved, That we regard the bigotry and dogmatism of distinct medical systems as inconsistent with the principles of medical progress.

Resolved, That we repudiate sectarianism in whatever form it may be presented, and hail with delight such a liberal spirit of philosophy as recognizes science, irrespective of schools.

Resolved, That we believe in the mutual recognition of professional attainments and skill without respect to party or sect.

Resolved, That inasmuch as the great commonwealth of the State of Pennsylvania has granted us as physicians a charter for our protection; therefore we cordially extend to all schools of medicine, all the privileges and immunities that we or they are entitled to by virtue of rights vested in them by legislative bodies of our State.



Resolved, That we condemn sectarianism, exclusion, bigotry and strife, medically speaking, which have no support in law either in State or nation. Finally, we believe in free and open competition in the practice of medicine as in any other profession or business of life, believing that time will prove all things, and that our sense of justice and truth will enable us to perceive and hold fast to those things which are good.

Dr. J. M. HARDING says in his address, we are always "to bear in mind that nature is at war with disease. As soon as she is conscious of an attack, and is by her efforts struggling to bear up under it, and relieve herself if possible, then come the great duty and obligation of the physician to make such a careful selection of remedies as will act in perfect harmony with Nature, and enable the system by her own efforts together with the assistance you afford her, to overcome and throw off the disease." With all respect to the learned gentleman, we beg leave to say he utters nonsense. But he only says what he was taught, and what thousands believe. It is about time that such crude ideas of pathology and therapeutics were laid upon the shelf. They do not accord with the teachings of modern science, and they perniciously affect the medical practice of the man or woman who believes in them. A belief in them becomes, however, a deeply rooted prejudice, difficult to eradicate. It cannot be cast out by a word; but we may say this, that the superstition that once peopled the air and forests with invisible but potent gods, is the same superstition that sees in the human body the workings of divers conscious agents alternately holding, and continually contesting for supremacy. say that nature (whatever that may be) is at war with disease, is about as sensible as to say that nature is at war with frost, lightning, storms, and earthquakes. Why, all these thingslife, health, disease, death, in the human body, and tornadoes, volcanic eruptions, blastings, simooms, heat and cold, are indissoluble parts of nature. They should be studied and treated as such, and not turned over to the domain of demonology.

DR. A. W. HOLDEN launches out before the New York Homœopathic Society after the following fashion: "We who have sat at the feet of grey-haired Gamaliels and are living amidst the intellectual profundity, the garnered and frosted wisdom of the ages, among the last and long-looked-for decades of the nineteenth century, when the scythe of Time wreathed with evergreens, clinging vines of prophecy, mows swiftly down the broad vale of years, gathering in the great harvest of truth, and as we flatter ourselves, destroying the false tares—the hollow weeds of untruth, imposition and deception, we are over-fond of talking about the universal spread of intelligence, the broadcast diffusion of knowledge, the advancing amenities of human intercourse, the steady onward march of human progress, the triumph of human rights over \human wrong, and the general uplift of humanity from debasing ignorance and depraying superstitions which have somehow come down to us from the dim, far-off past. Pluming ourselves upon—" but no, we are lost in such a medley of shattered ideas. We can go no farther. Is it not all written in the book of Transactions for 1871? Let the curious see for themselves.

DR. ROBERT McMurray, so late as 1871, declares to a large body of medical men that— "The mental or intellectual character is man's great and important distinction among the works of creative power." For vagueness that is a statement well conceived. It has too many interpretations. It seems to mean that intellect is an attribute belonging exclusively to man.—But we are charitably inclined to think the distinguished doctor would not say that.

An ancient manuscript is said to have lately turned up in which the ideas of Darwin are completely distanced. The origin of man is ascribed to the auspicious presence on terra of the little *pulex*, or common flea! The flea bit the noses and bodies of the apes; continual scratching removed the hair; hence shelter and clothing became necessary. To get clothing wild beasts were slain, and weapons were necessary, and union desirable. Invention followed, and thus civilization given a start.

In advance of our first issue, the *United States Medical and Surgical Journal* presents its welcome face in our sanctum. It is the initial number of the many valuable exchanges we hope to place on our list. Having some paternal relations toward the *U. S. M. & S. J.*, we shall always give it a kindly welcome.



Honored as we were by the Western Institute of Homœopathy with a place upon the publishing committee which founded that Journal, it was our pleasure to give its inception some personal attention. Since it has passed into other and better hands, it has the better fulfilled its destiny, and more than met the wishes of its many friends.

Theory and Brackice.

Homœopathy is distinguished from all other systems of medicine in two essential particulars—Principles and Therapeutics. Its "chief corner stone" is a law of nature, and dynamized drugs its therapeutic requirement. This law guides in the selection of the remedy, whose curative power has been developed and exalted by the pharmaceutic process of dynamization. jecting crude drugs and compounds, homeopathy demands that but one remedy be given at a time, or, if more than one be used, to allow a sufficient interval for the separate action of each, in its own appropriate sphere. It is furthermore differentiated from prevalent methods of practice in its Materia Medica of proved drugs, with their pathogenetic history separately and fully recorded; not refined drugs, merely, in a pharmaceutical point of view, but drugs whose pathogenesis has been determined by repeated testing, in more or less sensitive doses, upon the healthy human system, with a conscientiously exact notation of symptom; not drugs experimentally used upon rabbits, guinea pigs and pigeons, in toxic doses, to ascertain their physiologico-pathological effects upon purely animal organisms, as prerequisite to and governing their uses, as medicines for man! Such experiments may show how much or how little of a given drug may be required to produce death on a pigeon in a given time, with some effects preceding the fatal catastrophe.

they are utterly inadequate to meet the demands of scientific With such dissimilarity of organisms—the rabbit, the pigeon and man, as the subjects of trial, the former to determine the mode and degree of drug power and effect, to guide in their administration as medical agents for the human system—shall it be said that such tests fulfill all the requirements of the "scientific medicine" of the nineteenth century? Science asks "Cui Bono?" and still await a satisfactory answer from the experimentalist. It also names the true conditions, demanding equality, or at least similarity in organisms—drug trial upon the human system, for the human system. It suggests to the physiological school of drug experimentalists, to advance one step forward, and take the only true position, and the only proper subject for drug proving-the human system, male and female. Here their observations can be so supplemented by the co-operation of their intelligent subject, capable of describing the action of the drug upon his or her own system. These tests repeated upon a different persons, and the results compared and classified, possess real value as indicating the sphere of activity and pathogenetic power of the drug. Any thing less than this will not answer the ultimate purposes of a true, scientific system of medicine. One other condition is required to make the trial complete and reliable—trial upon the healthy and normal state of the human system. Experiments made under such conditions, and multiplied and carried forward until a large number of drugs had been thoroughly tested, and their effects upon the system accurately described and recorded, would produce a Materia Medica of inestimable value to science.

Apropos to the subject of drug tests upon purely animal organisms, showing the fallacy as well as unscientific nature of such tests, for therapeutic purposes, is the following extract from the April number of the "Popular Science Monthly:"

"A Poison Proof Bird.—A correspondent of Science Gossip tells of an attempt to capture a specimen of the Scavenger Bird, or 'adjutant' of India, in which he failed in a most unexpected way. On account of its valuable services in clearing the streets of decaying and putrid matter, the bird is held in high esteem by the natives, who take every precaution to protect it from harm. This prevented an open attack, and poison

was the only alternative. The carcass of a partially dissected bat was stuffed with enough arsenical paste and corrosive sublimate to kill twenty men, and the titbit thrown to a flock of the birds near by. One of them swallowed the whole of it at a gulp, and our student in comparative anatomy thought his game secure. But though closely watched for three hours, not the slightest sign of uneasiness was manifested, and at the end of that time the creature flew away with its fellows, apparently as well as the best of them. The accustomed haunts of the flock were afterwards carefully searched, but no trace could be found of the dead body wanted, and it was concluded that, unlike other gormands, this one was not to be easily got at through his stomach."

By the way of good wishes for the success of our zealous experimenters of the physiological school, we would express our great regret at the scarcity and high price of the monkey, suggesting that as the present status of the human system has its type in that illustrious animal, out of which it has been evolved, according to the teaching of modern scientists—the results of their experiments upon this early prototype of our race might prove more satisfactory, as it would certainly be more scientific, than those hitherto confined to orders of the animal creation not so nearly allied in nature to man.

To return to the subject of drug trial. But says an enquirer, however valuable such a work might be to the scientist, how could it be made available in practice to the physician? Here you would have several volumes filled with a heterogeneous medley of almost numberless symptoms affecting the entire organism—how bring order out of such a chaos, light out of such obscure and seemingly contradictory drug action?

The answer is easy. The key is found in a law of nature, which proclaims the curative power of all drugs to consist in their ability to produce certain effects upon the healthy system similar to certain symptoms found associated with certain forms of disease—thus making the artificial drug disease to conform to the natural or spontaneous disease in certain essential conditions and symptoms found in both.

Here arises an important question, in a scientific as well as therapeutic point of view: Does the physician who recognizes

the existence of such a law as supreme and all-dominating in the realm of disease, and who endeavors to treat all diseases in accordance with its requirements, fulfill the demands of true science and a philosophical therapeutics—or the physician who ignores this, or any other supposed law of cure, and prescribes simply upon his own judgment of what is best in a given case? The one works by fixed and inflexible law, the other by no law except that of the sheerest empiricism. The former turns to a Materia Medica of proved drugs, with the confidence of scientific guidance to the right remedy for the relief of his patient—the latter follows an ever changing and unphilosophical routine of selection and combination of drugs, perhaps never before so compounded, with the expectation of doing something, but whether the right thing or not, no human sagacity can foresee.

The following case will illustrate both the method and the result of a system of medical practice founded on nature's law of cure, as contrasted with a practice abjuring both system and law, and yet pretending to be pre-eminently scientific:

Miss C-, age 16, native of Ky., of nervo-sanguine temperament, light brown hair, blue eyes and daughter of a merchant. For the past four months, has had violent attacks of hysterical spasms at the menstrual period, requiring the care of two or three persons to keep her in bed, and from injuring herself du-Had been treated allopathically, but with sing the paroxysms. no permanent benefit. The mother reported her condition, Oct. 14th, 1872, to be substantially as follows: Very scanty and painful menstruation since these attacks appeared. free and almost painless. Sensitiveness, with feeling of fulness and pain, when going up or down stairs, through the hypogastrium. No appetite, bowels constipated, disturbed sleep. Melancholly, and aversion to seeing any one, with hyperæsthesia of all the organs of special sense. Frequent headache, with pressing pain in the forehead over the eyes, with constant aching and pains extending back into the head, and inability to keep the eves open in strong light. All these symptoms alleviated by having the room darkened. Prescribed Bell. 30th, 15 globules No. 40 in half glass of water, two teaspoonfull doses every 3

hours, except when sleeping, and to keep her room and be quiet as possible, renew the solution daily, and report in five days.

Oct. 19th Mrs. C. called again, reporting the daughter greatly improved in health and spirits—more appetite, better sleep, less tenderness of the hypogastrium, less sensitiveness of the head and eyes to light and noise. Continued the medicine, 4 doses a day, at intervals of 4 hours, for one week, and then report—advice the same as to rest.

Oct. 27th the Father of Miss C. reported so much improvement that he regarded her health better than any time within the past ten months. Her appetite and spirits were excellent, and her mother thought, if her next period should be natural, she would have no return of those "dreadful spells." About ten days yet remained. Prescribed Sulph. 30th and Puls. 30th, to be taken—Sulph., 4 globules No. 40, at 8 a. m. and 3 p. m. for four days, to be followed by Puls., same dose, at 8 a. m. and 8 p. m. until the next "period," and to be careful not to take cold. In the mean time to report any symptoms requiring attention, and especially as soon as the "changes" appeared.

Nov. 7th Mrs. C. called with the glad news of the natural return of menses, free, with but little pain or nervousness and no symptoms of hysteria, which had given them so much trouble and solicitude about their daughter the past few months.

A few words in regard to the remedies administered, for the benefit of the student of Homœopathy and the young practitioner. The history of the case, so briefly stated in outline of symptoms, would indicate congestion of the ovaries and uterus as the cause of the hysterical spasms and all the subsequent intermenstrual suffering. Bell. 30th fulfills all the special indications as to symptoms, pathological conditions and susceptibilty to medicinal impression of the patient, as a first remedy. In twelve days it relieved the congestion to such an extent that the reflex influence, developed upon the brain and sensorium, was entirely removed. And now, how to secure a natural return of the menses was the next, and final question, in the farther treatment of the case; for success, or in other words, no return of hysteria, seemed to depend upon a restoration of the ordinary menstrual function.

Shall we leave the case entirely to Nature, just here, where so much seems to have been done towards a cure, or shall we still use means which experience, and constitutional predisposition alike, point to as favoring the hoped for result? The latter we decided upon; for the importance of the case called for the very best thing that could be done for the relief of the patient. Hence Sulph. and Puls., in the potencies named, were given—the former, because of a constitutional psoric diathesis inherited from the father, and also as being one of our most potent reactionary agents against tendency to relapses during the first stages of convalescence—the latter, because the temperament of the patient, all the physical and mental characteristics and the ultimate object to be attained are found in this remedy.

It but remains to add that there has been no return of hysteria and the patient has been well to this date, March 12th.

M. H. Slosson.

Thuja is growing in favor with the profession. It is a remedy which should be carefully studied.

Makeria Mebica.

A NEW REMEDY.

In a paper by Prof. Richter, on the medicinal use of milk and whey, it is stated that kumiss, a substance prepared in northern Asia by the fermentation of mare's milk, according to an analysis in June, by Hartier, an apothecary, contains in 100 parts, 2.05 of fat, 2.20 of milk sugar, 1.15 of lactic acid, 1.12 casein, 28 salts as solid constituents, 1.65 alcohol, and .758 carbonic acid. Compared with an analysis of the milk this shows loss of nutritious matter (cheese, fat, sugar,), but gain of lactic acid, carbonic acid and alcohol. To these then must be ascribed the peculiar effects of kumiss; and they increase in amount if it is subjected, like

wine, to a subsequent fermentation. It has a pungent, pleasantly acid taste, with an after taste of almonds, and an acid odor, somewhat similar to that of the horse. The effect upon healthy individuals is that of a pleasant, cooling, thirst-allaying beverage. It does not injure the stomach or bowels, has no laxative effect, except when too fresh, or deteriorated, and is especially wholesome in hot weather. Resembling beer, it produces a slight intoxication, or rather exhilaration, without loss of consciousness, and with subsequent inclination to sleep. It produces no unpleasant after effects, headache, etc. When used for several weeks, the body increases in size and weight, the skin becomes moist, and the countenance acquires a peculiar fresh complexion. subjects who do not improve on the most nutritious diet, seem gifted with new life after the use of kumiss. Dr. Von Maydell, Medical Inspector, says that it combines the effect of animal food with the stimulating effect of carbonic acid on the vascular sys-It has acquired a great reputation in Russia, as a specific for consumption. Ucke and Stahlberg ascribe remarkable curative properties to it, in cases of chronic, not acute, catarrh of the respiratory organs, especially when accompanied by free expecto-This effect, in chronic bronchial catarrh, manifests itself almost on the first day of the use of the kumiss; and it is highly probable that it owes its reputation as a cure of consumption to this fact. The use of kumiss is not desirable in the case of plethoric persons, or a predisposition to apoplexy, congestion or hemorrhage, sluggishness of the liver or spleen, pregnancy, organic disease of the kidneys, bladder, heart, or vascular system, or hec-Blood-spitting is not a contra-indication, and the cause of some cases of blood-spitting, attributed to the use of kumiss, was the excessive summer heat of the Steppes.

Contrary to the opinion of many that it is necessary to use kumiss in the Steppes, where it is prepared, in order to enjoy its full effect, the resorts recently established elsewhere (first by Russian physicians,) have met with success. Among these are those of Dr. Witkof, in St. Petersburgh, and Stahlberg in Moscow, the latter of whom earnestly disputes the opinion that kumis is only effective in the Steppes. Out of Russia, goats' and even cows' milk is employed, with the addition of the sugar necessary for fermentation, and in order to imitate old kumiss, a

little wine is added. From Ottenstein one kind is sent out for women, children and feeble persons, and another to men accustomed to spirituous beverages. The latter evidently contains wine, and the former reminds one of seltzer water and milk. Although doubt has been expressed as to its transportability, it seems that it has long been forwarded from the Steppes to the interior of Russia, and at present different manufactories send out large quantities of milk-wine that will not deteriorate for several months, while Gross states that the Americans ship a milk-wine prepared on their western prairies to Eastern Siberia.

REMARKS.—The above very interesting account of this new remedy is taken from the columns of the *N. Y. Tribune*. As appears from the analysis given, it is a compound substance, being composed largely of *Lactic acid*, *Alaohol*, and *Carbonic acid*, three distinct chemical compounds: the alcohol being the product of the fermentation to which the milk is subjected in the formation of the remedy, which it will be observed, has attained a considerable celebrity as a curative agent in consumption.

We have had some provings (in a very limited degree, however,) of one of these constituents-Lactic acid, and the effects of carbonic acid and alcohol are to be gathered from the whole field of medical and chemical literature. It would seem from what we know of the therapeutic action of the individual agents of which this remedy is a compound, that the favorable results said to have been obtained in the treatment of consumption, by its employment, were due to the compounds as such; but it would be more interesting, more satisfactory, and much more in harmony with the demand of the times, if the specific action of each of the principal substances entering into the compound styled "Kumiss," were accurately ascertained. The more simple our remedies are, the more do they answer to the individualizing requirements of science, upon which it is the aim of our school to establish the Materia Medica.

CHARLES CROPPER.



FISH-BRINE (MACKEREL), AND ABORTION IN COWS.

A writer in the New York Tribune makes the following statement in regard to the effects of fish-brine on several of his cows. that had eaten of it with the straw fed to them: "In October. 1871, having a quantity of fish-brine (mackerel,) I took a bucket full and threw it against the side of a stack of clean, fresh, wheat straw, to which the cattle had access. They are ravenously of the straw, although they had been salted regularly each week. I repeated the operation three or four times afterwards, at intervals of a week, perhaps. Three weeks from the time they first ate of the brined straw, a fat cow two or three months gone, lost her calf. Six weeks after, a cow six months gone lost her calf, but failed to cast the after-birth for nine days, which injured her very much. Shortly after, another cow, in very fine condition, aborted, lost appetite, sickened and died. She had also failed to cast her afterbirth. Later still, another cow, seven months gone, dropped a living calf, which died, however, in two days. In this case I removed the after-birth. but the cow came very near dying and is of little value. cows before lost their calves on our premises, to my knowledge, within thirty years. Neighboring farmers had cows lose their calves to some extent, and are having them do so this season, and in the case of one very observant farmer, it is attributed to the use of salt in which mackeral had been packed."

REMARKS.—The pathogenesis of Natrum muriaticum reveals no action of this substance upon the uterus, to an extent sufficient to produce abortion. The principal symptoms given in the provings are: "Pressing and pushing from the sides of the abdomen towards the genital organs." "She had to sit down to prevent prolapsus uteri." Delaying and scanty menses." "Re-appearance of the menses, which had stopped for eighty-five days." "Re-appearance after a cessation of six months." "Profuse leucorrhæa." Inasmuch, therefore, as the salt contained in the fish-brine does not appear, in the light of any knowledge we possess in relation to the point before us, to have been the active agent in producing the abortions in the cases reported in the foregoing article, we are led to infer in the absence of

any other facts upon which to base an hypothesis, that the abortive action was due to some animal substance contained in the brine, and derived from the fish.

Do any of our readers know of similar cases?

Even if it be demonstrated that the abortion in the cases of the cows refered to, was due solely to the fish-brine, it would not therefore conclusively follow that a like action would be produced upon the human female. Still, any light which may be thrown upon the subject will prove of practical interest.

C. C.

NOTES FROM PRACTICE.

On the 26th day of May 1867, while visiting for a day at a place where I had formerly resided, I was called upon by a former patient, a married lady, who had upon her eyelid, about the middle line and near the free margin, a long slender tumor about one-eighth of an inch in length, firm, somewhat elastic and the base not quite so broad as the body of the tumor. This had been growing steadily for about four months, having first made its appearance as a very minute red spot.

The patient was also suffering from an erysipelatous affection of the face, the left cheek especially being much swollen and quite red; there was also considerable pain in the swollen part with a burning sensation. On the right eyelid toward the external canthus there was a spot similar to the one which had formerly appeared on the left hid and had developed into the warty tumor above described. I prescribed Thuja 3rd, not having a higher potency with me, and Rhus Tox. 30th—a dose in alternation night and morning.

June 15th, three weeks after the first prescription (having in the mean time sent another package of the same medicines) I again saw the patient. The tumor had entirely disappeared and the red spot on the right cyclid was scarcely discernible.

This case afforded to my mind a very satisfactory illustraton of the practical working of the homeopathic law.



The fact that two remedies were employed does not at all obscure the action of each, as the complication was such as to entirely separate the two affections both in manifestation of symptoms and indications of the specific remedies.

C. C.

BROMAL HYDRATE. (BrHO).

As the result of a number of experiments made by them with the Bromal Hydrate, Drs. Berti and Namias make these among their statements: I. That even in small doses and suitably diluted, this substance produces burning in the throat, pyrosis, vomiting and diarrhoa. 2. Even relatively large doses do not cause sleep and do not tranquilize the patient. 3. Poisonous doses produce death with sopor, paralysis of motion and sensation and rapid or gradual cessation of the respiratory movements.—Journal de Bruxelles.

Its primary action appears to be on the mucous and subcutaneous areolar tissues; affecting the nervous system but secondarily and even then only after the administration of large doses.

C. C.

Dr. J. P. Dake (U. S. M. & S. Journal) closes a well-written article on "Credulity and Incredulity" with the following valuable suggestions:

"I cannot close the discussion of the effects of credulity, the uncertainties in our Materia Medica, without referring to the ways and means at the command of the profession, for the effectual proving of medicines, and display of medicinal effects in the human organism, and in terms suited to practical uses. I will enumerate briefly:

- 1. Plenty of money to maintain an institution, located tavorably, and supplied with competent directors and every species of test, applicable and useful, in noticing and scrutinizing drug effects in the healthy human organism.
 - 2. Plenty of good provers, medical students, male and female,

who may, between the sessions at the medical colleges, be gathered together in the institution for six months in each year, free of all expense to themselves, and properly instructed and kept for the work in hand.

- 3. Opportunity for the adoption and intelligent use of a chart of regional anatomy, to serve as the standard and guide in describing the location of symptoms, so that the reports may be clear and trustworthy in the hands of either the practitioner or the philosopher in medicine—a guide in the selection of the remedy, or in the tracing of pathological states and relations.
- 4. Opportunity for the use of a uniform preparation and dose in the case of each prover.
- 5. Opportunity for obtaining from each prover an exact description of sensations experienced, and of every noticeable departure from usual health and comfort.
- 6. Opportunity for the critical examination, by competent persons and proper means, of secretions, excretions, temperature, thoracic sounds, etc., as affected by drugs under proving.
- 7. Opportunity for learning the temperament, habits, mental status, and reliability of each prover, together with any peculiar susceptibilities or idiosyncrasies, as affecting symptoms reported.
- 8. Opportunity for noting the number of provers in whom each symptom or train of symptoms has occurred, so as to arrive at the comparative value of symptoms, and so as to distinguish the characteristic from the common.
- 9. Opportunity, during the six months, between the sessions of the institution, for the arrangement and publication of—(I). A digest of symptoms, containing only such as had occurred in at least two provers, arranged according to the regions laid down in the anatomical chart, each symptom having placed above it in small figures, as is done to denote the powers in algebra, to tell in how many provers it occurred; and —(II). A full display of all the symptoms reported by each prover, in the order and connection of their occurrence, with any marginal notes made by the faculty of the Institution at the time. These individual reports to show the sex, age, temperament, previous occupation, and state of health of the prover. They are to be prefaced by a proper description of the article proved, its natural or common characteristics, its botanical, chemical or zoolog-

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ical nature, its empirical uses, mode of preparation, doses employed in proving and times when taken.

And the pathogenesis proper is to have a supplement, exhibiting the effects of the article, as gleaned from the reports of Toxicology, and old works on materia medica.

All the means and opportunities I have just enumerated, are within easy reach of the American Homocopathic profession, waiting only to be called into use by a proper effort and organization.

A Materia Medica made up in an institution, and in the way I have indicated, would cast away nothing true or great in our profession, but would enhance its value and clear it out from vast piles of rubbish. It would furnish the second side of our medical triangle, be in full keeping with our great therapeutic law, and prove useful alike to the sýmptomatologist and the pathologist.

A repertory, a cyclopædia, a comparative arrangement, a manual of characteristics, taking the materials it could furnish—genuine symptoms—"wheat" and not "tares,"—would not lead to the many disappointments, the chagrin and disgust, now felt by every honest practitioner of homœopathy who relies upon such works for guidance in the selection of his remedies.

Such a Materia Medica would place medicine high up among the sciences, and its practice upon a sure footing.

The incredulity of most of the profession to day is great enough, but moving in the wrong direction. Old works on poisons and Materia Medica, all the storehouses of empiricism and eclecticism, are being searched and plundered for remedies of some positive character, by the dissatisfied and disgusted students of Jahr's Manual; and the fresh, new temple of Hahnemann is being filled up with "strange and unknown gods," gathered from all quarters of heathendom.

The incredulous, rising now to the other extreme, are rising in practice, and extolling in nearly every issue of our journals, remedy after remedy, which has never passed even the forms of a proving. Oh, good brethren of the true church! "What do you more than others? Do not even the publicans so?"

C. Neidhard, M. D., (idem.) gives an interesting pathogenesis and clinical proving of Cod Liver Oil. (Oleum Jecoris Aselli.) The medicine is prepared by mixing the pure oil with alcohol and letting it remain a long time. These provings show pretty conclusively that the remedy has a wide and important range of action, and its virtue is not due, as is generally believed, to its nutritious quality. The leading chest symptoms seem to be—soreness and burning heat, sometimes on the right most frequently on the left side; barking cough; yellow expectoration; shortness of breathing; stitches are also frequent, and all the symptoms aggravated by coughing. "The hoarseness connected with incipient as well as advanced stages of consumption, is often very promptly cured by Oleum Jec. as.

Goullon, in his work on Scrofulous Affections, discusses at some length the value of Cod Liver oil in scrofulous complaints. He quotes Kafka as authority that it is valuable in:—

- 1st. All forms of scrofulosis and tuberculosis of the glands, especially if the hyperæmic and inflammatory processes have run their course, and a chronic swelling has remained.
- 2d. In all forms of scrofulous cutaneous diseases, which produce exudation, such as eczema, impetigo, pityriasis rubra, tinea, favus, prurigo, etc., as well as in degeneration of the cutaneous follicles, which is known by the name of cutaneous tubercle.
- 3d. In all chronic catarrhal processes of the organs of respiration: e. g., of the nose, larynx, pharynx, trachea, bronchi, etc., which accompany scrofulosis and tuberculosis.
- 4th. In all scrofulous diseases of the bones, joints, periosteum, as well as to tuberculosis of the bones.
- 5th. Also, rheumatic affections, so far as they lie within the range of Iodine, especially as they are connected with chronic exudations in the joints, between the muscles, or in the subcutaneous cellular tissue.
- Dr. T. Franklin Smith recommends *Cosmoline* as the best article he ever used for burns. Dr. Throop thinks that various aplications do good because they keep in the heat rather than because they keep out the cold. That is a distinction without a difference.

Department of Surgery.

We beg our readers' pardon for not furnishing more articles in our department of the last number of the ADVANCE. Our excuse is a good one, and if you will accept it, we promise that in the future the surgical department of the journal shall be better filled, not with better articles, but more of them. The communication from Prof. Owens on "Ulcerative Absorption of Bone" is worth the yearly subscription of the journal. His report of similar cases, appearing in this journal, should be carefully read.

We have a promise from Dr. Schell that he will give us frequent translations, and his selection of the new and novel operations by Prof. Nussham, from the *Intelligensblatt*, clearly shows his ability to select articles that will be of great value to our surgeons.

Dr. Breyfogle, of Louisville, who has spent the best part of the last two years in the hospitals of Europe, has also assured us that he will select and translate such articles from German and French surgical periodicals, as will be of most value to American surgeons.

Several of our best surgeons will furnish us with reports of their operations and homœopathic treatment of surgical diseases.

We hope that the physicians of our School will contribute to the pages of the Advance, anything they may have of value to our department. We want the reports of cases of surgical diseases treated homœopathically, for in no department of medicine can more satisfactory results be shown than by attenuated homœopathic remedies, given after severe injuries or surgical operations, and nothing will further the rapid spread and growth of our system more than informing the the public through the pages of journals of the advantage of our medication in such cases.

We have made arrangements to have engraved anything requiring illustration, and if our contributors will send us a drawing of what they want illustrated, it will be neatly executed and will appear in its proper place in the article.

In conclusion, Reader, we are determined to have the pages of the surgical department of the ADVANCE so filled with reading matter that you will welcome it, and find in every number something that will interest as well as instruct you.

S. R. BECKWITH.

HIGH POTENCIES AFTER A SURGICAL OPERATION.

It is useless to further discuss the relative merits of high and low potencies, as every physician who has prescribed either has observed the curative effects of each. And the only benefit that can now be derived in respect to the relative value of different attenuations, is in physicians reporting the most rapid cures that have been observed in using different potencies of the same drug in any given form of disease, as for example:

Many years since, two cases of croup that were not benefitted by low potencies of Aconite, Hepar sulphur, and Spongia, were cured by Prof. Ellis, prescribing the same remedies in the twohundreth. Since then, I have treated croup patients with high potencies, and have long been convinced that croup can best be cured by these preparations.

I have similar experience to relate in reference to the action of high potencies after severe surgical operations; and the effects have been so marked that even opposers to our system have acknowledged their curative results.

I removed a large, solid, ovarian tumor which was extensively adherent to the uterus, sacrum and peritoneum, and which required not only a large amount of dissection, but the removal of both ovaries.

The patient was a feeble young lady of 19 years of age. I was assisted in the operation by several competent surgeons of both schools, and all agreed that on account of the dissections necessary to removal, that the patient would die from inflammation should she withstand the shock of the operation. I not only fully concurred in this opinion, but regretted that the operation had been performed, as I had never seen a case recover where there were so great adhesions, and I could not conceive it possible that she could recover under any treatment that I had given after the operation of ovariotomy. At that time I had removed numerous ovarian tumors, with no more than the average success of other operators.

The recollection of violent peritonitis, with rapid prostration and death, that have so often followed the operation where I had given small doses of morphine until the acute pain was relieved, followed by low potencies of Aconite, Arnica, and Belladonna was too vivid in my mind to expect a favorable result here.

After the completion of the operation, and the patient was placed in bed, I prepared a dose of morphine to give the patient, to relieve her severe suffering, when the attending physician forbade its use, with the remark, "I only employed you to operate, not to treat my patient. She shall have nothing but Aconite 30th and Arnica 30th at present." I assured him that the pain would be so severe that it would be almost inhuman not to give some form of an anodyne. His only reply was—"It will endanger her life."

I am very free to confess that I lest the patient with not a very high estimation of the good sense of "My High Dilutionist."

This case was reported daily by telegraph and letter, and each report stating, "Patient doing well, no inflammation." The tenth day I was anxious to see a case of the kind described, and so I visited the patient, when I found the wound nearly healed, and the patient having a good appetite and rapidly convalescing. I was informed that no untoward symptoms had arisen. In a few weeks the patient, with an attending friend, entered my office. I was again assured by her and by the phys-

ician, that he had only given Aconite and Arnica 30ths the entire treatment.

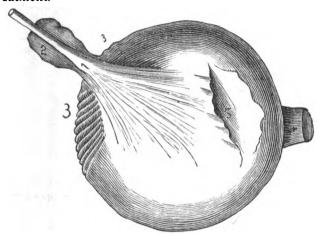


Fig 1

This tumor was solid, weighing about 12 pounds. On ac-

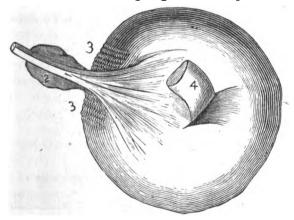


Fig 2

count of its peculiar adhesions I present these illustrations of it:—

Figs. 1 & 2.—1, 1, Fibrous tissue. 3, 3, Ovary. 4, Anterior ligaments, adhesion. 5, Peritoneal adhesions.

The above cuts represents the tumor divided, and the parts adhered to the utcrus, sacrum, and the enlarged ovary cut through its centre is designated by letters and figures.

CASE II.—This was the removal of a multilocular ovarian tumor, weighing twenty-four pounds, from a patient 44 years of age. The tumor was partially encysted, and she had been tapped several times. After making the incision, it was found that the anterior saculated portion of the tumor was adhered to the peritoneum over a very large surface, requiring an extensive dissection to separate the sac. Numerous "vessels required torsion. After the completion of the operation, I asked a competent surgeon (of the old school) what he would think of remedies that would prevent or control severe inflammation in the case. He replied, "God never made the remedies that would prevent acute peritonitis in any case where the peritoneum had been injured as much as in the case of our patient."

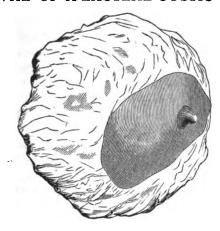
I never before had made such extensive dissections in ovariotomy, and I was doubtful of the result. Tepid water was applied to the abdomen, Aconite 30th and Arnica 30th given every three hours. This case was reported to me in same manner as the former, by telegraph the first few days, and then by letter, each report giving encouraging news from the patient. At the end of two weeks my friend of the old school adds his report to that of the attending physician in a few but expressive words—"God has made the remedies."

Four weeks after the operation I received a letter from the patient in which she says, "After you left here, I continued steadily to improve. I had no fever whatever during the whole time, and little pain."

Facts are stubborn things, and when observed and admitted by our opponents, and the laity, in regard to cures by high potencies, what homeopathic physician dare deny? S. R. B.

In no field of art has the genius of invention accomplished so much as in surgical instruments and appliances. The bright, slender finger of steel, and the curious eye of the mirror probe the secret recesses, and read the mysteries that the incantations of witchcraft once sought to reveal.

REMOVAL OF A LACTEAL CYSTIC TUMOR.



For the last two weeks I have watched with much benefit the rapid convalescence of Mrs. J. H. B., of Maysville, Ky., who is at present in this city, recovering from the effects which the removal of a large tumor produced.

Dr. McGranaghan, of Maysville, who brought Mrs. B. to this city for the purpose of having the operation performed, furnishes the following interesting facts in regard to its history:

Soon after Mrs. B.'s first confinement, she obtained the services of a colored nurse for the purpose of relieving the swollen breast, which at that time was the cause of much suffering. The nurse not following the ordinary method, (either from ignorance or carelessness), relieved the swollen and over-full gland by a process of pressing and palpation, which, although it granted relief for the time, was the cause of after consequences more serious than either the mother or nurse at that time suspected.

After Mrs. B.'s second confinement, about four years since, her breast became useless, it furnishing no milk; but at the same time it increased to a considerable size. She being exposed one evening to the night air, and catching cold, her breast increased to a still greater size than it previously was, and instead of breaking, as was anticipated, it commenced to solidify

without retracting in size, feeling under pressure as if it contained a quantity of loose bones.

The points of interest which attach themselves to this tumor a re—that it was no doubt caused by the dilatation and rupture of the lacteal ducts, owing to their being filled at the time of the rough manipulation referred to, and that after Mrs. B.'s second confinement the milk—instead of finding the natural channels, which were ruptured—collected itself in the cellular tissues, and adjacent parts, and formed itself into this adenoid tumor, which after removal weighed about five pounds.

The operation was performed by Dr. S. R. Beckwith, assisted by Drs. D. S. Hartshorn and C. C. Bronson, on Tuesday, March 11th, 1873.

The treatment since the operation has been Aconite 30th and Arnica 30th, and the results so far are very flattering, and Mrs. B. is on a fair way to recovery, no inflammation having yet presented itself. Above is a cut representing the appearance of this tumor after removal.

G. C. J.

CINCINNATI HOSPITAL.

The buildings of this institution were erected five years since at an expense of nearly a million and a half of dollars. It is the largest building in this country devoted to hospital purposes. It is open daily for the admission of students to witness the numerous surgical operations performed there. During the college session the students of the Pulte College, in common with students of other schools, were allowed to walk the wards daily, at 8 a. m., with some member of the medical staff. At nine o'clock they witnessed operations and listened to lectures on pathology, diagnosis etc., until eleven o'clock. Every Saturday, when there were no lectures in college, they assisted in the dead house of the hospital, where post mortems were held and lectures given on pathological anatomy. Each student was allowed, during the session, to attend two cases of obstetrics.

The hospital buildings are admirably arranged in reference to

the wants of the student. The ampitheater seats a thousand persons and is well lighted by a sky-light. The seats are so formed that all can have a good view of the operations. The medical and surgical staff is composed of experienced physicians and surgeons in no way connected with any medical college; hence no favors are shown to any class of students.

Cincinnati has several other hospitals to which students are admitted. Now when we compare the advantages afforded here to young men studying the profession, with those of any other city in the union, we cannot see how it is possible for any one to find a more desirable city in which to pursue medical studies; and more especially when the genial climate of this latitude is considered. To find what Cincinnati does not possess for the medical student, will compel one to visit the universities and hospitals of European countries.

S. R. B.

CARBOLIC ACID.

This remedy has had an unparalelled run for a few years. It is not only prescribed for almost all forms of disease, from consumption to itch, but applied externally all along the line from cuts to ulcers, used to fumigate all foul places outside the human body, as well as to enter the cavities of the body in surgical operations.

Notwithstanding it is a panacea, it has done harm in a few instances by ruining men, as in the case of Helmbold—preventing the sale of his Buchu. It is very contagious; not only all the Allopathic, but many Homœopathic doctors have caught the disorder.

The discoverer of the drug should have his name immortalized. He should rank with Columbus who discovered a place for people to live in—Carbolic Acid keeps them well and alive to enjoy the place thus discovered.

Was there ever a quack who advertised so many wonderful cures of all diseases by the use of his compounds, as the writers of medical journals have done in their articles on the use of Carbolic Acid. Let us have a thorough proving of the drug and learn its exact curative action before we recommend its use.

S. R. B.

Surgical Bakhology.

The following incident is related in a late number of Harper's Weekly: "A young man in Portland, Maine, was recently taken ill, with unmistakeable symptoms of lead poisoning. Physicians were summoned, and it appeared that he had been wounded by a minnie ball in 1864 at the battle of the Wilderness, and at that time the bullet could not be found. An examination being again made at this time, it was discovered in the thigh. It was worn and smoothly polished, and evidently a sufficient amount of lead had permeated the system to produce the poisoning, which doubtless in a short time would have proved fatal."

C. C. Bronson.

TO OBTAIN SKELETONS OF SMALL ANIMALS.

Put any subject, such as a mouse or frog (if a bird strip it of its feathers,) into a box perforated with a number of holes. Let the box be properly braced, to prevent the parts from collapsing, or being crushed together by pressure of the earth. Then place the box with its contents in an ant-hole, and in a few days it will have become an exquisitely beautiful and perfect skeleton. The ants will have consumed every part of it except the bones and ligaments. The tadpole acts the same part with fish that ants do with birds; and through the agency of this little reptile, perfect skeletons, even of the smallest fishes, may be obtained To produce this, it is but necessary to suspend the fish by threads attached to the head and tail, in a horizontal position, in a jar

of water, such as is found in a pond, and change it often, till the tad-poles have finished their work. Two or three tad-poles will perfectly dissect a fish of small dimensions in twenty-four hours.

The following instance of death occasioned by the introduction of a foreign substance into the air passages, is taken from a Richmond (Va.) newspaper. We regret that the position and pathological surroundings of the seed were not given.

Last July Willie S., a child one year old, attempted to swallow a water-melon seed, but it passed into the windpipe. The occurrence came near terminating his life at once by suffocation, but after a few hours the extreme distress of breathing passed away, and it was hoped that the offending seed had been expelled. Time dissipated these hopes. Inflammation of the trachea, of a moderately severe form, set in and continued until November, when he contracted measles, following rapidly on which came pneumonia. For many days recovery seemed hopeless, when to the surprise of all he passed into a seeming state of hopeful convalescence. Three weeks later, however, the pneumonia returned, and was again relieved; it yet returned again, and was again relieved; and three days before his death, which occurred on the 25th of January last, violent inflammation of the bowels came on, followed quickly again by pneumonia, from which he died, as stated.

In the Post-Mortem, the fatal melon seed, which the attending physician had constantly suspected of the mischief, was found.

Department of Physics.

GENERAL HYGIENE.

In the winter of 1854-55 there were during the Crimean war in the British army of 29,000 men 54,000 sick, so that each man was taken sick twice during one year; 9,383 died of sickness, while only 765 died in battle. Such apalling facts opened the eyes of the English people, and they set at once to work and passed sanitary laws, introduced them into the army with a view to ameliorate the social, moral, and sanitary condition of the private soldier. In the return of the Director General of the Army Medical Department we find now the following figures, which are authentic:

Deaths among the troops serving in the United kingdom annually, per 1,000 men:

	1830-36.	1859-60.
Generally throughout,	14	5
Cavalry of the line,	15	6
Royal artillery,	15	7
Foot guards,	21	9
Infantry of the line,	17	8

Similar returns for the colonies are as follows:

	1837-56.	1859-61.
Gibraltar,	22	9
Malta,	18	14
Ionian Islands,	27	9
Bermuda,	35	11
Canada,	20	10
Jamaica	128	17
Ceylon,	74	27

But why search the records of the British army, when our late war proved that the sickness, and death from sickness decreased in proportion to the improvements of the sanitary regulations of our troops in the field and hospital.

Near Blaine's Cross Roads, East Tennessee, there were, during the winter of 1863-64, two army corps, the Ninth composed of Eastern and Northwestern men, the Twenty-third composed mostly of Tennessee regiments. While the Ninth had comparatively very few sick, the Twenty-third, under the same climatic influence, furnished with rations by the same commissary, and provided for by the same Quartermaster, had a great number of sick. In the same division or brigade you could notice sometimes a great difference in the mortality, and always reduce it to a lax execution of hygienic regulations. This rule could be applied even in the same regiment to one or more companies.

Take, for example, our own city. Not many years ago the mortality among children from scarlatina, diphtheria, and other zymotic diseases, was far greater than now, and the "doctors" reaped a rich harvest from year to year owing to the filthy condi-

tion of our streets and alleys, and the want of knowledge and the careless execution of hygienic measures.

Slow as our authorities, and especially our State legislators, are in amending the present Sanitary Code, and imperfect as these regulations are yet, still we find a marked improvement in the general health of the inhabitants and a proportionate decrease of the mortality, and naturally a general complaint of the "doctors" about a corresponding decrease of "business."

True, we have had epidemics of small-pox, and we may have epidemics of the same or other zymotic diseases, such as Typhoid Fever; but experience proves beyond a doubt that all these diseases owe their origin and existence to filthy, ill-ventilated habitations, damp houses, bad air, overcharged with carbonic acid gas.

Herzog, in an article (Deutsche Klinik, 1867, Vol. XIX, No. 1) upon the effects of carbonic acid gas, when remaining within the lungs and blood in a greater than normal quantity, proves beyond doubt that tuberculosis and scrofula are the legitimate consequences.

But aside from its debilitating and depressing effects upon the organism, developing its susceptibility for the reception of the outward factor, it is the principle promotor for the germination of miasmatic poisons.

Next to bad air, we find foul water, or water charged with organic substances, as rain-water collected from the roofs where fowls congregate, or improper and insufficient food, as principal causes for these diseases. Equally true it is, that if they reach a certain degree of intensity, they will attack not only the poor and ignorant in their hovels, but also the rich and intelligent in their better constructed houses and palaces.

Then the alarm is sounded—"Stamp out the disease!" Sheer nonsense, as long as half of the population or more cannot live in accordance with the laws of nature; so long as they are deprived of fresh air, provided with unclean or foul water, and live in overcrowded or damp subterannean rooms. You may as well try to stop the current of the Ohio River. Just as it will find an outlet or channel, so sure will disease, epidemic or endemic result from the causes before mentioned.

That there are certain telluric conditions not yet understood, exempting certain localities and predisposing others, is well known.

So during the years 1849-51 Sandusky and the country around, also Toledo, in consequence of the condition of its soil and subsoil, suffered in proportion more than any other locality.

Twenty-two miles from here is the city of Lawrenceburg, built upon a gravel soil, porous and dry. No indigenous case of cholera is reported from there, while four miles further down, on the Ohio river, Aurora, built upon limestone, with impermeable subsoil, suffered dreadfully from cholera.

We have quoted before the words of Descartes - "The regeneration of mankind has its foundation in the science of medicine." And here the practical lesson comes in. The intelligent citizen, seeing that the degraded condition of the lower classes of society, even the working classes, will once in a while endanger his own welfare and jeopardize his own life and the life of his family, will endeavor to ameliorate the condition of these classes, not only by a thorough education, but also by giving them an opportunity to improve their dwellings and provide the comforts necessary for the preservation or health, by increasing their wages, and if necessary, by sharing even with them some of the profits of their accumulated riches.

The normal, hearthy condition of a Commonwealth or corporation depends upon the same laws as that of the individual organism—as a micro-organism. Let one vital function be deranged, and the whole body suffers. Let one part of a house, for instance the cellar, be damp, and every room becomes unhealthy; let one district of a city become filthy, and the miasmas emanating from it will affect more or less a part or the whole city; let one class, and as it is now considerable in numbers, suffer for want of light and air, or food and water, and its detrimental results will be felt by all classes.

The same rule applies to mankind in general, as a macro-organism, or the whole human family. The Delta of the Ganges, in virtue of its telluric and atmospheric conditions not only, but also on account of the low social condition of its inhabitants; Persia and Egypt by reason of the same causes; In fact the whole orient is to western nations what the Deer Creek or Mill Creek bottom is to Cincinnati. There on the shores of the Ganges river, where cholera has been endemic for the past two thousand years, the seed of the disease, (the outward factor, the tox-

icon,) germinates in its hot-bed, and spreads from time to time either across the levant—the old East India route, which promises to be again the modern highway between the East and the West—or through the southern plains of Russia, over the Western continent.

The duty of self preservation makes it imperative upon the Western Nations to interfere, and demand peremptorily improvements and amelioration in behalf of themasses kept in ignorance and servitude by a profligate and despotic oligarchy. This duty becomes a necessity, because the danger of infection will increase in proportion to the increase of the means of communication and intercourse between the two continents by the Suez Canal finished, and the railway contemplated.

You will see, gentlemen, what a wide field opens here for the profession at large and for the ambition of the individual. You see further how closely the subject of public hygiene is connected with legislation, connected in fact with all the varied relations of man.

The question of public health has, in fact, to be solved originally and finally by the legislator. In England this is understood, and a great deal has been accomplished by an act of Parliament creating a board of health for each incorporation, with a medical officer, who has to undergo a special examination in matters pertaining to public and individual hygiene, and even engineering.

And, if I should succeed in these lectures to move public opinion to such a degree that our legislators might be induced to become at least convinced of the evils existing, my aim would be accomplished.

The question is of far-reaching importance. It affects our welfare and our wealth as a nation, and it behooves a wise legislature to study the same in all its bearings, and to take such measures as will prevent diseases by hygienic regulations, in accordance with experience and science.

Diseases and premature death do not emanate from an inscrutable power, but always result from certain causes, more or less understood, and more or less under our control. The finding out of these causes is the province of the physician; the legislator has to furnish the means for their control by proper enactments. Improving the nature of man so as to approach perfection more

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and more is the end; the means for it: investigation and knowledge of man in his closely linked connection with nature, as it developes itself in a series of objects and beings, gradually rising from chemical action to vegetation and animal life. Next follows investigation of the conditions of the human body as established by experience, its reactions against outside influences hostile to it.

This knowledge being acquired, it will be our object to introduce it into practical life, into the general mental culture of individuals as well as our Nation, so that its demands will find proper consideration in all classes of society; that means for warding off and preventing diseases will be discussed in our newspapers, sanctioned by our Legislatures, and then adopted and propagated by every individual for his own good.

The destiny of mankind and the genius of science is bound to overcome obstructions apparently hemming it in: after it has done so, it is again enabled to move onward.

Here now, is the field. Whosoever is devoted to the holiest interests of mankind, let him here enter into the contest and struggle for the prize!

G. SAAL.

Physiology, Mieroscopy, Etc.

SENSITIVENESS OF GRANULATIONS.

A HISTOLOGICAL INVESTIGATION OF THE CAUSES AND CONDITIONS
UPON WHICH IT DEPENDS.

Every one has observed how sensitive are the various tissues when deprived of their external covering. This sensitiveness varies according to the location of the granulating surface, and according to the process of granulation—whether it be normal or otherwise—and is sometimes the cause of much suffering to the patient, and annoyance to the physician; and as the idea of sensation is almost always associated with nerves, any perverted



Physiology.

sensation is usually connected solely with the nerve structure. The object of the present inquiry is to ascertain whether the sensitiveness of granulating surfaces—whatever be its degree—is due to simple exposure of nerve filaments, to atmospheric contact, mechanical irritation, or unhealthy pus; to a proliferation of nerve elements during the reparative process, or to some other condition not immediately referable to the nerve tissue.

That in some instances any or all of these conditions may enter as a factor is undoubtedly true, but they would enter into the pathological consideration of any given case, while we are at present concerned rather with the histological condition, applicable to, or present in all cases, a knowledge of which must form the basis of investigation for any special case.

GRANULATIONS,

according to recent investigations, are formed of luxuriant growths of connective tissue overloaded with lymphoid or migratory cells,* these migratory cells being derived from the white blood globulcs. Some authors believe that the cell formation arises simply from cell-division; others that they arise directly and solely from the connective tissue; while Rindfleisch believes that they arise from either or from both.

The very important relation which

CONNECTIVE TISSUE

bears to all histological processes is recognized by all modern investigators. Virchow believes that we are "almost justified in regarding this tissue as a kind of neutral ground for parts to meet upon." That it undergoes a somewhat different development according to its location, and relation to adjacent tissue, is no doubt true, and it is now believed to be present in parts hitherto supposed to be devoid of any such element—e. g., the brain—and that aside from the office usually assigned to it, viz.: of holding the parts together, it is intimately related to all histological and reparative processes, as an intermediate structure between the nutritive element and the living tissue. Virchow regards the proof furnished by Hyde, Salter, and Huxley as "extremely de-

[†]Virchow, Stricker, Huxley, Hyde, Salter and others.



^{*} Frey.

cisive," "that fibres proceed from connective tissue corpuscles, which, while pursuing their course in an inward direction, all at once assume the character of transversely striped muscle."

The transformation then, which the connective tissue corpuscle undergoes, would seem to be determined by the adjacent structure.

The annexed diagram illustrates the simple development of connective tissue:

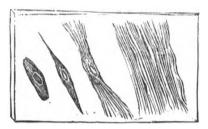


Fig. 1.—Stages in the development of connective tissue.

Starting with a nucleated, oblong or spindle-shaped cell, we find its extremities gradually separating into fibres, and finally the whole structure becoming fibrous.

The lymphoid or migratory cells which are present in such numbers in granulating surfaces, present a different appearance, and undergo a different development.

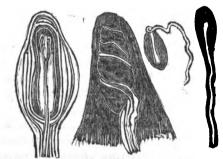


Fig. 2.—Pacinian body.

True Tactile Corpuscle.

Terminal bulbs.

The termination of nerve fibres has been very carefully studied in the lower animals, and in man, and has been found to vary very widely; the "terminal bulbs," "tactile corpuscles," and "Pa-

cinian bodies" occurring with greater or less frequency in the connective tissue of the skin, if regarded as the sole mechanism of sensation, fail, from their sparseness, to account for the phenomena of sensation at every pin's point of the surface. The connective tissue which so closely envelopes all these bodies must transmit the impulse with greater or less accuracy to the central bulb and nerve filament.

In the tactile corpuscle and pacinian body, connective tissue enters largely and intimately into the organic structure, and is undoubtedly concerned in the transmission of sensations, which are afterwards separated or analyzed by the nerve elements, and transmitted in an insulated channel to the nerve centres.

Now the organizable material brought by the capillaries to the granulating surface undergoes gradual transformation, and by a continuous process of organization is assimilated into living tissue.

Nutritive elements which are to be transformed into nerve, or muscle, bone or gland, exist originally in a homogeneous mass, and during the earlier stages of assimilation when the process of organization has not yet advanced to any great extent, and no very marked differentiation has been reached, by virtue of greater correspondence of structure the specific function is less marked. In the evolution of the complex from the simple—of the heterogeneous from the homogeneous, just to the extent that any tissue or any organ is set apart for the performance of any special function, just to that extent is it disqualified for the performance of any other function. We have then in unorganized, dissociated, individual cells, a community of function, in organized tissue a specific function.

In cases where there is a direct correlation of force or function we find a corresponding homogeneous structure.

Take, for example, the correlation of nerve force into muscular contraction. The transition of impulse is not an abrupt one, for there can be neither loss nor gain of force; we find, therefore, a corresponding gradation of structure, a correspondence in nerve elements, and muscle elements, so that it is difficult to determine where the nerve leaves off and the muscle begins.

The following diagram illustrates the termination of the motor nerve filament in, or upon, the muscular fibre:



Fig. 3.—A, A, terminal plate. B, nerve fibre entering the muscle fibre. c, c, muscle fibre. D, D, primordial muscle cell.

At the point of union, the "terminal plate," neither nerve or muscle has a definite structure. There is a proliferation of nucleated cells corresponding both to the primitive cells of the muscle and of the nerve; there is usually no bilging, or elevation at the point of union, but a coalescing of elements. Both nerve structure and muscle structure are lost in a homogeneous mass of cells and granules, just at the point where the nerve impulse, or nerve force, is correlated into muscular contraction, or irrita-Correlation of force presupposes homogeneity of structure, as specific function presupposes definite structure.—(Heterogene-Now in a granulating surface we have not as yet a definite structure, but a "luxuriant growth of connective tissue overloaded with lymph corpuscles," and we have seen with what facility connective tissue accommodates itself to its surroundings. The transformation of connective tissue into muscle or nerve is a process of differentiation.

The condition present in granulations is "sensitiveness," a general condition rather than a specific sensation, and consequently does not involve, directly and essentially, the nerve structure, and is therefore a question of quantity rather than quality.

Hence we conclude that the sensitiveness of granulations is not necessarily due to a proliferation of nerve elements, or to exposure of nerve filaments, but is a natural consequence of the formative stage, when the connective tissue is itself in a "sensitive" condition, responding to any or all impulses, and transmitting impressions, and responding to irritation with greater force, but with less definiteness.

In all pathological conditions, other elements enter as factors, and each separate case must be individualized; but physiological knowledge forms the basis of pathology. In some cases connective tissue is organized, as such, and no assimilation takes place, and an "indolent ulcer" is the result; hence, a knowledge of the action of chemical agents, such as acids and alkalies, on granulations will aid us in facilitating the reparative process, while specific medication will correct the discrasia upon which it so often depends.

J. D. Buck.

The editor kindly asked us to introduce the following article on "Spontaneous Generation" with a few remarks. And although opposed to the belief advanced by Mr. Abbott and assented to by a large body of modern philosophers, I am glad of an opportunity to preface so well-written an article.

Shadowed by the greatness of his theme, which rarely gets a deserved reverence from writers—inasmuch as it lies between physiology and Spencer's God who is too great to know—the reader will recognize a hatred of any other theism than pantheism, special creationists being particularly "monstrous." But the truly great subject rises above personal opinions, and demands the closest investigation.

In reading the article, it will be noticed that the origin of living tissue, besides the processes of homogenesis, or reproduction by ova, spores, etc., is divided into three classes:

Agenesis, actual spontaneous generation, or the origination of living, growing, moving, multiplying bodies. Necrogenesis, the production of living forms from the parts of other living beings—different from the parent stock. Xenogenesis, the origination of a different species, from an existing species, by processes of propagation.

Xenogenesis is of no value in the argument for spontaneous generation, although worthy of presentation in discussing evolution—and yet, even there, not in entire harmony with the theory of the "survival of the fittest." If the advocate for "spontaneity" chooses to contend for the possibility of xenogenesis, other than the regular transition stages which take place under

the order of some sublime theism, he flanks the already weakened propositions of evolution concerning the conflict for life, the "wear and tear" of nature being supplanted by a more clever postulate. Yet our writer requires us to accept everything this nicely articulated modern philosophy teaches. Nor does he even allow the shadow of Moses to lie athwart the uncountable ages required for the preparation of the fossilized skeleton of antiquity, whose petrified joints are now the genesis and the exodus of these great sciences.

Necrogenesis, the second division, it strikes us, little concerns spontaneous generation, unless the protein* of the dying animal is itself integrally dead—not dead as the latent acorn, but disorganized. The question of spontaneous generation is not whether cells already prepared for the functions of life, will exercise them under favorable circumstances, even when removed from the machinery of which it once constituted a part, but whether the unprepared products of vegetation, or the fortuitously approximated molecules of inorganic matter, may set up in and of themselves animation, and originate those functions.

Spontaneous generation will only be unequivocally demonstrated when the living vegetable or animal is originated in material indisputably inorganic. The casting adrift of one organism by another, however different, is not the problem under discussion.

In discussing Agenesis it were better to remove the befogging entanglements of the other questions in Natural History which enter into the argument of Abbott, principally for the purpose, we judge, of showing how completely he is discipled to an anti-theistic "universal law and order." The ex cathedra opinion given in the first sentence neither adds to the beauty or force of his article. Nor is it advisable to beg the good will of the theist by such statements as "either hypothesis is consistent with theism," because the great mass of theists who rest their opinions outside the walls of modern philosophy, believe in the "monstrous form" of "special creation."

Again, Mr. Abbott attempts to fetter the opinion of the non-

^{*}The "protoplasm" of Huxley, if it has an existence which requires a specific name, is of itself so protean in character, that the word "protein" includes scarcely greater variety of properties and composition.



believer in spontaneous generation, by stating that if they have no faith in his views they must suppose everything to have been "created" full-fledged—there are a large number of special creationists who are infatuated with evolution, protoplasm, pre-Adamite earth, and stretch the Mosaic record over endless ages—and consequently suppose no such thing.

Mr. Abbott boldly lays down the statement—"The hypothesis of heterogenesis assumes no deviation from universal laws; whereas the hypothesis of special creations, postulating the sudden apparition, without parentage, of the highly developed animals and plants, and that, too, confessedly by supernatural volitions, takes for granted a kind of spontaneous generation which is utterly irreconcileable with universal order." that appears to us as a very questionable argument. or not the "universal order" is the order of evolution, or the order of an initial creation is the question at issue. Leaving his questionable and atheistic play upon the words "spontaneous generation," we do not see that his hypothesis is any more in keeping with a universal order, than is the original creation of a type for every living form, with a quite invariable succession. He antedates our creations with a universe produced by some unknowable nobody, and we have an equal faith in God. presents us with the universe made up without a maker—a sublime effect without a cause—and we don't.

He admits that reliable experimentation upon this subject is unsatisfactory in result.*

Under these circumstances, let us give boiled protoplasm its just credit, but no such stunning declamations as to call a non-belief in its powers "monstrous,"—a slight perversion only of his first sentence.

Suppose it is possible that germs of vitality may exist in the sealed tube, and resist 208° of temperature; or that air cannot be so exhausted but that spores remain. Let us imagine that minute organisms may defy heat as Iceland lichens defy cold.



^{*&}quot;We have no space to devote to the history of the hypothesis of heterogenesis, which, however, has the authority of many of the most eminent names in science, both ancient and modern; but we cannot dismiss this subject without saying that the most recent and most trustworthy experiments tend as much to confirm as to invalidate the hypothesis, on the whole."

It would be wholly impossible to imagine the size of the germ of a monad, developed in its spherical womb by "free cell development," when the germ of a six-foot man is too infinitessimal for the microscope. Under these conditions is it not possible that some writers are too positive in their deductions?

Let us take a cell formed by some spontaneous movements of molecules, were it possible, without the aid of parentage. The cell being formed, with its wall, its thinner internal fluid, and possibly a nucleus. Endosmosis and exosmosis go on. Circulation is established. Now will the cell fisciparate, gemmate, or multiply by free cell development? Will it accrete on this side or the other? Will it jut out feelers about its how-formed-mouth, or will it prolongate a tail? What, we ask, is the determining "universal law" of its growth? If the determination is in a certain direction, then that determination is either chance or — what? If its "happenings" determine, then chaos reigns, and theism of any kind, at any time, is unnecessary. If it assumes shape under any circumstance other than chance, is it not by special creation, or special direction.*

Fish.

SPONTANEOUS GENERATION.

BY F. E. ABBOT.

Since the spontaneous-generation hypothesis simply supposes the gradual evolution of the lowest forms of life out of inorganic matter, while the special-creation hypothesis supposes the instantaneous creation of the highest forms out of the same inorganic matter, it is clear as noonday that special creation is neither more nor less than spontaneous generation in its most monstrous form. The one hypothesis harmonizes with the idea of

^{*}There are many points introduced into this discussion which we have no space to properly review. The genius of the "modern philosophy" is to establish a positive science under which not only all present effects and eauses may be subjected to demonstration by induction, but also all past transitions of matter and mind. Consequently, the range of this "inductive" philosophy is exceedingly large. Scarcely a modern writer, whose faith in science seeks a more positive rest than revelation gives, but treats of a number of "hypotheses" outside his special theme; and generally with an unwarrantable inference of their "positiveness" to aid in the proof of pres-

[†]From an article on "Ph:losophical Biology," in the North American Review, October 1868.

universal law, the other glaringly contradicts it. Nor is it on philosophical grounds alone that the hypothesis of spontaneous generation rests. Regarded in a purely scientific light, it is strictly an open question. Although incapable of verification in some of its aspects, actual experiments, conducted by men of the highest scientific reputation, justify the statement, that, in other aspects, spontaneous generation may be a normal fact, even at the present time. A few words on this subject will not, we trust, be deemed out of place.

In its widest sense, generatio æquivoca, or "spontaneous generation," called also, sponteparite' by Duges, and hoterogenesis by Burdach, means the coming into existence of an organized being otherwise than by parentage. The phrase is by no means intended, as vulgarly supposed, to signify fortuitous generation (Huxley, Origin of Species, p. 90, uses the word in the same manner), that is, to imply the absence of causation; it does imply that organisms of the lowest order may originate in appropriate media in other ways than by ordinary reproduction, but it also implies the action of natural causes, and the invariability of natural laws in the most vigorous sense of those words. The processes of heterogenesis, if facts are conceived to be as truly regulated by the

ent propositions. Thus Bagehot developes the science of nation-making with the assistance of the hypothesis of evolution. Herber Spencer developes heterogeneous from the homogeneous with the same hypothesis, and scarcely constructs a magazine article on "Sociology" without falling back upon the decidedly hypothetical "contlict theory." Mr. Abbott, as usual, acknowledging the weakness of present demonstrative proof, not only sees evolution in every form of animal life, but goes back of things mundane, and rests the grandest superstructure induction has ever created upon the nebular hypothesis! And it is the best place to let these hypotheses rest—or at least upon geology. Let us glance at the nature of these sciences. Evolution is based upon the wonderful harmonies, or similarities, and graded differences, in animal structure—no transitions have ever been witnessed. Yet the theories are evolved because of these harmonies, and grades—when finite wisdom cannot comprehend either a creation or an evolution without them. The truth of the hypothesis waits upon geology. Geology has proven nothing in regard to the pre-Adamite earth, but with all its strata from present primary up to post-tertiary, can demonstrate no transitional stage going on, nor can demonstrate many of its profuse hypotheses which modern philosophy takes for granted—and its grand earth-changes are referred to astronomy! The nebular hypothesis has to shoulder the bulky burden of proof. But from Saturn to the milky-way, amid all the GRADED harmonies of Heaven, not a transition from flecky gold to volcanic rock has the telescopic eye seen! "Time!" cries the positivist. Yes, but when a few philosophers have lived the decillion decades, necessary for proof of such tremendous hypotheses, the rest of us will be dead—fossils, perhaps, under the sean of a modern evolutionist.

laws of Nature as the commonest facts of our observation, can be no more "chance" in the one case than in the other. pothesis of heterogenesis, assumes no deviation from universal laws; whereas the hypothesis of special creations, postulating the sudden apparition, without parentage, of the most highly developed animals and plants, and that, too, confessedly by supernatural volitions, takes for granted a kind of spontaneous generation which is utterly irreconcilable with universal order. Every objection, therefore, brought against the former hypothesis tells with tenfold force against the latter. Either hypothesis is consistent with theism; the former alone is consistent with faith in the harmonious economy of the universe. Much of the popular repugnance to the doctrine of heterogenesis arises from its supposed atheistic tendencies; whereas such tendencies no more exist in this than any doctrine which implies the strict universality of natural law. Apart, however, from all theological prejudices, it encounters a formidable obstacle in the justifiable demand of science itself, that all genesis of new organisms shall be explained by parentage until genesis without parentage is proved,—that the law of homogenesis shall be assumed to be strictly universal until a complementary law of heterogenesis is experimentally established. Harvey's famous maxim, Onine vivum ex ovo, as amended by Charles Robin into Omne vivum ex vivo, and by Milne Edwards into Tout corps vivant provient d'un corps qui vit, unquestionably justifies the opponents of heterogenesis from the standpoint of positive science, and throws the burden of proof upon its advocates. But, looking at the question from a higher point of view, the scientific advantage seemingly gained by rejecting heterogenesis is more than offset by the greater philosophical disadvantage of not being able to explain the first origin of life without having recourse to miracle. If life ever originated without miracle, it is fairly presumable that under similar conditions, it so originates now. Whether the conditions are now similar or not, experiment and observation must decide. nebular hypothesis would necessitate the admission that there was a time when no organisms existed—that there was a time, consequently, when a first organism appeared. This first organism must be supposed to have been naturally evolved out of inorganic matter by heterogenesis, or else to have been miraculously

created by supernatural intervention—a supposition as contrary to the spirit of positive science as it is to the spirit of philosophy. The question of the first origin of life cannot always be ignored by scientific thinkers; and when it is once fairly raised, the burden of proof is transferred to the advocates of universal homogenesis, who must explain the apparition of the first organism, which, exhypothesi, had no parents, as best they can.

The chasm, however, between homogenesis and heterogenesis is not so wide as is commonly supposed. In the last analysis all generation is spontaneous. Throughout the entire animal kingdom generation commences by ovules which exist as organisms prior to fecundation. Heterogenesis is not supposed to create suddenly an adult organism, but to proceed in the same way as normal ovulation, which must be itself spontaneous in com-As in the tissue of the stroma an ovule spontaneously originates under appropriate conditions, so it is supposed to originate by heterogenesis, in other proligerous substances. That ovules thus spontaneously originated may develope into living individuals without the previous process of fecundation, is shown by the singular phenomena of so-called "parthogenesis." as certain Lepidoptera, in some species of which the males have never been found. Nothing more than this is supposed to take place in heterogenesis, except that the nutritive medium in which the germ originates is different. "It is surprising," says M. Pouchet, "that we should have to wait till the nineteenth century for the discovery that the initial process in both forms of generation is precisely the same." In either case, that "tendency to individuation" by which Snelling defined life, manifests itself under appropriate circumstances in the formation of a new individual. "There is, however, one fact implying that function must be regarded as taking precedence of structure. Of the lowest rhizopods, which present no distinction of parts, and nevertheless feed and grow and move about, Prof. Huxley has remarked that they exhibit life without organization." Whether in homogenesis or heterogenesis, life must first manifest itself in the production of a germ in an appropriate medium of environment; and the question at issue between the two hypotheses is simply this: Are previously existent organisms the only natural media productive of such germs? The modes of reproduction known as fission



and gemmation (scissiparite' and gemmiparite') which are still farther removed from ordinary gamogenesis than even the phenomena of parthogenesis, seem to stand as connecting links between the two extremes of ovarian and "equivocal" generation. Here, too, the philosopher must accept the maxim, Natura non facit saltum. If Mr. Darwin, in the acknowledged paucity of intermediate forms, may reasonably appeal to the "imperfection of the geological record" in behalf of the natural evolution of species, so may the heterogenist, with equal reasonableness appeal to the imperfection of the biological record in behalf of the natural evolution of life itself? Whether the appeal is reasonable or unreasonable, it is at least a logical necessity of the development hypothesis in both cases.

M. Milne Edwards conveniently divides the question of spontaneous generation. Designating production by parentage as homogenesis, and production without parentage as heterogenesis, he divides the latter into the three following classes:

- 1. Agenesis, or the formation of a living being by the spontaneous organization of non-living matter.
- 2. Necrogenesis, or the formation of living beings in consequence of the dissociation of the parts of a dead organism, which, as parts, should still preserve the faculty of living, and of developing into new organic forms.
- 3. Xenogenesis, or the formation of living beings by the physiological action of a living organism, which should transmit to them the principle of life without impressing on them its own organic characters; the new being would not be of the same nature as its parent, and would represent a different species.

We have no space to devote to the history of the hypothesis which, however, has the authority of many of the most eminent names in science, both ancient and modern; but we cannot dismiss the subject without saying that the most recent and most trustworthy experiments tend as much to confirm as to invalidate the hypothesis, on the whole. The investigations of M. Pouchet, an ardent advocate, and of M. Pasteur, an equally ardent opponent of this hypothesis, have given fresh interest to the question within the last few years. Very recently, M. Donne' has performed experiments which render it probable that heterogenesis is a fact; and this probability is increased by the results obtained

in England by Dr. Child, and in this country by Prof. Jeffries Wyman, whose reputation for accuracy and impartiality has no superior. After comparing the various degrees of temperature shown by trustworthy evidence to be compatible with organic life in various thermal springs in nature, and concluding that 208° Fahrenheit is its extreme limit of endurance, as thus far determined by observation, Prof. Wyman minutely describes a long series of delicate and ingeniously devised experiments conducted by himself for the purpose of ascertaining "how far the life of certain low kinds of organisms is either sustained or destroyed in water which has been raised to a high temperature. remarkable of these experiments showed that seven flasks, hermetically sealed, and containing a boiled solution of the "extract of beef" (Borden's concentrated juice of beef, evaporated to a nearly solid substance, free from tissues and entirely soluble), became the seat of infusorial life after being continuously boiled for four hours,—three of the flasks on the second day, and four of them on the fourth day. If the boiling was prolonged to five hours, as was done with other flasks, no infusoria appear-If the infusoria thus developed in hermetically sealed flasks, after prolonged boiling for four hours, came from germs or spores, previously existent in the organic solution, then these germs or spores must be capable of resisting the destructive action of boiling water during that period of time; but if these germs or spores are incapable of resisting the dkstructive action of boiling water during so long a time, then the developed infusoria must have been generated spontaneously; that is, independently of pre-existent organisms. To determine this point if possible, Prof. Wyman instituted additional experiments. The usual signs of life manifested by infusoria being locomotion, growth and reproduction, and initiation of the processes of fermentation or putrefaction, he inferred that "inactivity in the presence of organic material suitable for nourishment, and of air at the ordinary temperature, added to the absence of the other signs of life, must be considered as the best indication of death. Experiment showed that all motion of the vibrios ceased at about 135° Fahrenheit, and all motion of the ciliated infusoria ceased at less than 130°; and that "the solutions to which boiled infusoria were added did not become invaded by animalcules sooner than those to which

none had been added, while those to which unboiled infusoria were added were in all cases invaded at least one day, and in some two or three days carlier." These results confirm the opinion of Spallanzani himself, perhaps the most determined opponent of heterogenesis, that the action of boiling water prolonged destroys the vitality, not only of developed animals and plants, but also of their eggs and seeds, and render the hypothesis of heterogenesis, by far the most plausible explanation of the appearance of infusoria in organic solutions, after continuous boiling for four hours, in hermetically sealed flasks.

THE STUDY OF SOCIOLOGY.

The following extract is from the pen of Herbert Spencer, in the March number of the *Popular Science Monthly:*

One of the facts difficult to reconcile with current theories of the Universe is, that high organizations, throughout the animal kingdom, habitually serve to aid destruction or to aid escape from destruction. If we hold to the ancient view, we must say that high organization has been deliberately devised for such purposes. If we accept the modern view, we must say that high organization has been evolved by the exercise of destructive activities during immeasurable periods of the past. Here we choose the last alternative. To the never ceasing efforts to catch and eat, and the never-ceasing endeavors to avoid being caught and eaten, is to be ascribed the development of the various senses and the various motor organs directed by them.

The bird of prey with the keenest vision has, other things being equal, survived when members of its species that did not see so far died from want of food; and, by such survivals, keenness of vision has been made greater in course of generations. The fleetest members of an herbivorous herd, escaping when the slower fell victims to a carnivore, left posterity; among which, again, those with the most perfectly adapted limbs survived: the carnivores themselves being at the same time similarly disciplined and their speed increased.

So, too, with intelligence. Sagacity that detected a danger

which stupidity did not perceive, lived and propagated; and the cunning which hit upon a deception, and so secured prey not otherwise to be caught, left posterity where a smaller endowment of cunning failed. This mutual perfecting of pursuer and pursued, acting upon their entire organization, has been going on throughout all time; and human beings have been subject to it just as much as other beings. Warfare among men, like warfare among animals, has had a large share in raising their organizations to a higher stage. Here are some of the various ways in which it has worked:

In the first place, it has had the effect of continually extirpating races which, for some reason or other, were least fitted to cope with the conditions of existence they were subject to. The killing-off of relatively-feeble tribes, or tribes relatively wanting in endurance, or courage, or sagacity, or power of co-operation, must have tended ever to maintain, and occasionally to increase, the amount of life-preserving powers possessed by men.

Beyond this average advance caused by destruction of the least-developed races and the least-developed individuals, there has been an average advance caused by inheritance of those further developments due to functional activity. Remember the skill of the Indian in following a trail, and remember that under kindred stimuli many of his perceptions and feelings and bodily powers have been taxed to the uttermost, and it becomes clear that the struggle for existence between neighboring tribes has had an important effect in cultivating faculties of various kinds. Tust as, to take an illustration from among ourselves, the skill o the police cultivates cunning among burglars, which, again, leading to further precautions, generates further devices to evade them; so by the unceasing antagonisms between human societies small and large, there has been a mutual culture of an adapted intelligence, a mutual culture of certain traits of character not to be undervalued, and a mutual culture of bodily powers.

A large effect, too, has been produced upon the development of the arts. In responding to the imperative demands of war, industry made important advances and gained much of its skill. Indeed, it may be questioned whether, in the absence of that exercise of that manipulative faculty which the making of weapons originally gave, there would ever have been produced the

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tools required for developed industry. If we go back to the Stone-Age, we see that implements of the chase and implements of war are those showing most labor and dexterity. If we take still existing human races which were without metals when we found them, we see in their skilfully-wrought stone clubs, as in their large war canoes, that the needs of defense and attack were the chief stimuli to the cultivation of arts afterwards available for productive purposes. Passing over intermediate stages we may note in comparatively-recent stages the same relation. Observe a coat-of-mail, or one of the more highly finished suits of armor—compare it with articles of iron and steel of the same date; and there is evidence that these desires to kill enemies and escape being killed, more extreme than any other, have had great effects on those arts of working in metal to which most other arts owe their progress. The like relation is shown us in the uses made of gunpowder. At first a destructive agent. it has become an agent of immense service in quarrying, mining, railway making, etc.

A no less important benefit, bequeathed by war, has been the formation of large societies. By force alone were small nomadic hordes wedded into large tribes; by force alone were large tribes wedded into small nations; by force alone have small nations been wedded into large nations. While the fighting of societies usually maintains separateness, or by conquest produces only temporary unions, it produces, from time to time, permanent unions; and as fast as there are formed permanent unions of small into large, and then of large into still larger, industrial progress is furthered in three ways. Hostilities, instead of being perpetual, are broken by intervals of peace. When they occur, hostilities do not so profoundly derange the industrial activities. And there arises the possibility of carrying out the division of labor much more effectually. War, in short, in the slow course of things, brings about a social aggregation which furthers that industrial state at variance with war; and yet nothing but war could bring about this social aggregation. two truths, that without war large aggregates of men cannot be formed, and that without large aggregates of men there cannot be a developed industrial state, are illustrated in all places and times. Among existing uncivilized and semi-civilized races, we

everywhere find that union of small societies by a conquering society is a step in civilization. The records of peoples now extinct show us this with equal clearness. On looking back into our own history, and into the histories of neighboring nations. we similarly see that only by coercion were the smaller feudal governments so subordinated as to secure internal peace. And, even lately, the long desired consolidation of Germany, if not directly effected by "blood and iron" as Bismarck said it must be, has been indirectly effected by them. The furtherance of industrial development by aggregation is no less manifest. we compare a small society with a large one, we get clear proof that those processes of co-operation by which social life is made possible, assume high forms only when the numbers of the co-operating citizens are great. Ask of what use a clothfactory, supposing they could have one, would be to the members of a small tribe, and it becomes manifest that, producing as it would in a single day a year's supply of cloth, the vast expense of making it and keeping it in order could never be conpensated by the advantage gained. Ask what would happen were a shop like Stewart's, in New York, supplying all textile products, set up in a village, and you see that the absence of a sufficiently extensive distributing function would negative its continuance. Ask what sphere a bank would have had in the Old-English period, when nearly all people grew their own food and wove their own wool, and it becomes obvious that the various appliances for facilitating exchange can grow up only when a community becomes so large that the amount of exchange to be facilitated is great. Hence, unquestionably, that integration of societies effected by war has been a needful preliminary to industrial development, and consequently to developments of other kinds-Science, the Fine Arts, etc.

Industrial habits too, and habits of subordination to social requirements, are indirectly brought about by the same cause. The truth that the power of working continuously, wanting in the aboriginal man, could be established only by that persistent coercion to which truth is, that only by a discipline of submission, first to owner, then to a personal governor, presently to a less personal government, then to the embodied law proceeding from government, could there eventually be reached submission

to that code of moral law by which the civilized man is more and more restrained in his dealings with his fellows.

Such being some of the important truths usually ignored by men too exclusively influenced by the religion of amity, let us now glance at the no less important truths to which men are blinded by the religion of enmity.

Though, during barbarism and the earlier stages of civilization, war has the effect of exterminating the weaker societies, and of weeding out the weaker members of the stronger societies, and thus in both ways furthering the development of those valuable powers, bodily and mental, which war brings into play; yet, during the later stages of civilization, the second of these actions is reversed. So long as all adult males have to bear arms, the average is that those of most strength and quickness survive, while the feebler and slower are slain; but when the industrial development has become such that only some of the adult males are draughted into the army, the tendency is to pick out and expose to slaughter the best-grown and healthiest; leaving behind the physically inferior to propagate the race. fact that among ourselves, though the number of soldiers raised is not relatively large, many recruits are rejected by the examining surgeons, shows that the process inevitably works towards deterioration. Where, as in France, conscriptions have gone on generation after generation, taking away the finest men, the needful lowering of the standard proves how disastrous is the effect on those animal qualities of a race which forces a necessary basis for all higher qualities. If the depletion is indirect also—if there is such an overdraw on the energies of the industrial population that a large share of heavy labor is thrown on the women, whose systems are taxed simultaneously by hard work and child-bearing, a further cause of physical degeneracy comes into play: France again supplying an example. therefore, after a certain stage of progress, instead of furthering bodily development and the development of certain mental powers, becomes a cause of retrogression.

In like manner, though war, by bringing about social consolidations, indirectly favors industrial progress and all its civilizing consequences, yet the direct effect of war on industrial progress is repressive. It is repressive as necessitating the abstraction of men and materials that would otherwise go to industrial growth; it is repressive as deranging the complex interdependencies among multitudinous, productive, and distributive agencies; it is repressive as draughting off much administrative and constructive ability, which would else have gone to improve the industrial arts and the industrial organization. And if we contrast the absolutely military Spartans with the partially-military Athenians in their respective attitudes toward culture of every kind, or call to mind the contempt shown for the pursuit of knowledge in purely-military times like those of feudalism, we cannot fail to see that predominant warlike activity is at variance not only with industrial development, but also with the higher intellectual developments that aid it and are aided by it.

So, too, with the effects wrought on the moral nature. war, by the discipline it gives soldiers, directly cultivates the habit of subordination, and does the like indirectly by establishing strong and permanent governments; and while in so far it cultivates attributes that are not only temporarily essential, but are steps toward attributes that are pemanently essential; vet it does this at the cost of maintaining, and sometimes increasing. detrimental attributes—attributes intrinsically antisocial. aggressions which selfishness prompts-aggressions which, in a society, have to be restrained by some power that is strong in proportion as the selfishness is intense, can diminish only as fast as selfishness is held in check by sympathy; and perpetual warlike activities repress sympathy; nay, they do worse—they cultivate aggressiveness to the extent of making it a pleasure to inflict injury. The citizens made callous by the killing and wounding of enemies, inevitably brings his callousness with him into society. Fellow-feeling habitually trampled out in military conflicts, cannot at the same time be active in the relations of civil life. In proportion as the giving pain to others is made a habit during war, it will remain a habit during peace: inevitably producing, in the behavior of citizens to one another, antagonisms, crimes of violence, and multitudinous aggressions of various kinds, tending toward a disorder that calls for a coercive government. Nothing like a high type of social life is possible without a type of human character in which the promptings of egoism are duly restrained by regard for others. The necessities of war imply absolute self-regard and absolute disregard of certain others. Inevitably, therefore, the civilizing discipline of social life is antagonized by the uncivilizing discipline of the life war involves. So that, beyond the direct mortality and miseries entailed by war, it entails other mortality and miseries by maintaining antisocial sentiments in citizens.

Taking the most general view of the matter, we may say that only when the sacred duty of blood-revenge, constituting the religion of the savage, becomes less sacred, does there arise a possibility of emergence from the deepest barbarism. Only as fast as the retaliation, which for a murder on one side inflicts a murder or murders on the other, becomes less imperative, is it possible for larger aggregates of men to hold together and civilization to commence. And so, too, out of lower stages of civilization higher ones can emerge, only as there diminishes this pursuit of international revenge and re-revenge, which the code we inherit from the savage insists upon. Such advantages, bodily and mental, as the race derives from the discipline of war, are outbalanced by the disadvantages, physical and moral, but especially moral, which result after a certain stage of progress is reached. Severe and bloody as the process is, the killing-off of inferior races and inferior individuals leaves a balance of benefit to mankind during phases of progress in which the moral development is low, and there are no quick sympathies to be continually seared by the infliction of pain and death. But as there arise higher types of societies, implying types of individual character fitted for closer co-operation, the destructive activities exercised by such higher societies have injurious reactive effects on the moral natures of their members, which outweigh the benefit resulting from the extirpation of inferior races. After this stage has been reached, the purifying process, continuing still an important one, remains to be carried on by industrial war-by a competition of societies during which the best, physically, emotionally, and intellectually, spread most. and leave the least capable to disappear gradually, from failing to leave an adequately-numerous posterity.

SCIENCE AND HOMOEOPATHY.

What has medicine to do with modern science? What has the future of Homeopaty to do with recent discoveries in the various departments of scientific investigation? These questious are earnestly pressed upon us by a respectable class of conservatists who look with jealous eye upon the inroads that are being made upon their cherished opinions and practices. It is not denied by them that Hahnemann did a good thing when in his day he revolutionized medical science, but that Hahnemann's system should in our day be revolutionized, or so much as modified in any respect, is absurd, if not criminal. And it seems to them equally absurd that medical men should dabble with things that do not pertain to their profession. Let them learn Anatomy, Physiology, Materia Medica, Pathology, etc., etc., and then stick to their trade. Their motto is: No shoemaker should go beyond his To be a successful and popular practitioner of medicine is the height of professional ambition.

To all this, we simply make reply: That to follow such a course, and to reach such results are all that we can reasonably expect of many men. For that which such men accomplish, we are profoundly thankful. But why should they be made models for others who have differennt capacities, larger opportunities, and a higher ambition? For the latter, the prescribed curriculam of the medical schools is far too narrow a field of study, and they would feel ill at ease if hopelessly harnessed to the onerous duties of daily medical practice. To minds so constituted, collateral branches of study are more than a pastime—they feed soul and body with daily food. It cannot be safely asserted that such acquirements are detrimental to a medical man's character. It will not be denied that knowledge of this sort is a valuable adornment to its possessor. The homeopathic school does not particularly suffer from a plethora of learned men. Since Hahnnemann's time, few discoveries worth recording havebeen made. In many small ways we have improved upon our predecessors, but even this has been done under protest. If it be true that Homeopathy has reached the stage of perfection; if it be true that we do not desire nor seek for further improvement, and if we are content to have no men among us qualified by superior aud varied knowledge to help us forward to a nobler development, then our duty plainly is to follow on in the good old way, and in full faith that there is nothing new under the sun. But this is not our creed. We believe among other things, that Homeopathy, as the exponent of modern medical science, is part of the one great system of truth of which Nature, in all her multiform existences, is the whole. Judged wholly by itself, no system can be proven true or false. These are best seen reflected in the face of facts that have to do with other departments of science. Until we see ourselves as others see us, we can have no just conception of our good or bad points. But more than all this, Homeopathy has achieved its past success over other medical schools by its close conformity to the laws of Nature, instead of trying to follow a lawless empiricism, or the behests of an arbitrary theory. Now we are daily more and more obtaining a clear insight into the laws of Nature, and it would not be strange if these discoveries should both enhance and materially modify our present notions of medical science. T. P. WILSON.

Book Antices.

Zoology, An introductory Text Book, For the use of Junior Classes; By H. Allyn Nicholson, M. D., D. Sc., M. A., Ph. D., (Gott.), F. R. S. E., T. G. S. Lecturer on Natural History in the Medical School of Edinburgh; Senior Vice President of the Geological Society of Edinburgh, etc.

Our purpose in calling attention to this work of Prof. Nicholson's, issued in 1871, is to place within the reach of students an elementary treatise on Zoology, which will provide them with the means of obtaining that elementary knowledge so essential to a comprehension of the scientific discussions now occupying the leading minds of the age, and forming so large a part of scientific journalism.

Particularly does the revival of the subject of "Spontaneous Generation," in works of such scope and power as Dr. Bastian's "Beginnings of Life," render such elementary knowledge essential to every student who would comprehend these discussions,

and decide for himself on which side lies the weight of evidence.

English Edition imported by Robt. Clarke & Co. American reprint by D. Appleton & Co., N. Y. J. D. B.

The Characteristics of the New Remedies, by Edwin M. Hale, M. D., Professor of Medical Botany, Pharmacology and Therapeutics of the new remedies, in Hahnemann Medical College, Chicago. Third edition, re-modeled and re-written. Published at Lodge's Homœopathic Pharmacy, Detroit, Michigan. 1873.

With the beginning of the year came the publication of the Third Edition of Dr. Hale's Characteristics of the New Remedies. This product of that indefatigable worker, Prof. Hale, makes its appearance in new dress, with new arrangement and new material. It is in fact a new book, presenting to our view an enlarged field for investigation, and is well calculated to enlarge our armory by furnishing us with new weapons with which to combat that potent, yet mysterious monster, Disease.

Throwing aside the cumbersome, and to a large extent unpractical, arrangement of previous editions, our author gives us in a concise and attractive manner the results of his investigation and research.

A work on Materia Medica, to be practical, must have its remedies so classified, and their pathogenetic and clinical value so indicated that the required remedy can be selected without the expenditure of time necessary to read its entire proving. This the author has done. At a glance we learn the name of the remedy, its synonyms, its anologues, its officinal preparation, while from its regional symptomatology its homœopathicity is readily determined.

This edition, which, by the way, is interleaved, introduces to our notice some 82 new remedies, swelling the entire number to one hundred and sixty-one. Unlike the former edition, it contains not alone the indigenous vegetable remedies, but also remedial agents from all quarters of the globe, contributed from every kingdom, the vegetable, the animal and the animal. Surely from so large a field there can be garnered much golden grain. A very attractive feature of this work is the Clinical Repertory, the compilation of Dr. Whitman, of Illinois. This calls for

particular mention, not only in acknowledgement of the labor bestowed upon it, but in recognition of the fact that it so greatly enhances the value of the book.

The Appendix furnishes us with a valuable contribution to the pathogenesis of Helonias Dioica, which notwithstanding the two "grievous mistakes" acknowledged by the contributor, evinces, with its tables and diagrams, a degree of care, thoroughness, and patience that is worthy the imitation of all provers. In one particular, however, this prover lays himself open to severe criticism. In his third paragraph the allusion to his figurative exposure of his person is certainly very reprehensible. It adds nothing of value to the article, and its presence in the book, occurring possibly through the inadvertence of the editor, is a decided blemish.

With this single word of condemnation, we will deliver ourselves of the opinion that in the light of the favorable reception of the preceding editions, we predict for this one, with its vast improvements, that hearty acceptance from the profession which is the just reward of a correct appreciation.

C. E. W.

Ovarian Tumors—Ovariotomy; by E. R. Peaslee, M. D., L.L. D. D. Appleton & Co.

It is a real pleasure to take up a work as well written and neatly printed as this. It would seem that the author had left no part of the subject without a thorough and satisfactory examination. In relation to the anatomy, pathology, and treatment of ovarian tumors every important point is exhaustively dwelt upon. The greater part of the work is devoted to that most interesting subject—ovariotomy. The history of the operation from its first performance by Dr. Ephraim McDowell, of Danville, Ky., in 1809, down to the present time, the progress it has made in the leading European countries, and the views of the leading surgeons upon the propriety and modes of operating, form one of the most readable chapters in the book. A fine likeness of Dr. McDowell may be found on the first page, and throughout the book is amply and elegantly illustrated.

For sale by Geo. F. Stevens & Co., Cincinnati.

Serofulous Aflections, AND THEIR TREATMENT, According to Homosopathy, etc., etc.; By H. Goullon, of Weimar. Bæricke & Tafel.

We are sure the title of this book will arrest attention. What greater need have we than a knowledge of a successful method of treatment for scrofula in its multitudinous forms? What a God-send to suffering humanity that doctors may know how to combat these fearful diseases! The complex pathology of this disease is well set forth by the author. That he is something more than a symptomatologist, and understands the theories and facts of modern pathology, is clearly evinced by his writings. The translation is faulty, and should be improved. This does not seriously impair the value of the work, and we are sure it will be perused with profit.

Annual Record of Homosopathic Literature. C. G. Raue, M. D., Editor. Bæricke & Tatel, New York.

This is the most valuable work given to the profession during the year. It is the cream of all that has appeared in our jour nals in the past twelve months. A glance at the names of the authors from whose writings the contents have been gleaned will show who have been the busy workers of our school. Both in its arrangement and selection of matter, it seems to us to us to be above criticism. Dr. Raue, for his hard labor, and the publishers for their enterprise, deserve our thanks. The profession will need no urging from us to convince them of the need of sustaining this annual publication, or of the practical value of having such a work regularly placed in our hands.

Miscellaueous.

In Michigan, Homœopathy has achieved another of those legislative triumphs which have resulted in nothing but vexation and disappointment. For nearly twenty years the Regents of that magnificent university at Ann Arbor have held their posi-

tions and exercised their powers under a law which "provided at least one professor of Homeopathy is appointed," and which proviso has been reaffirmed time and again. the fulfilment of this law the Regents could get no money.— Struggle after struggle resulted in their discomfiture. versity became shamefully poor, and the dogged perverseness of the Regulars became none the less intolerant. legislative fight the law was changed to require the appointment of two Homœopathic professors instead of one! the result with interest. A legislative committee which visited the university to look up this matter was deceived by the officers of the medical department. They stated that a homœopath could graduate as readily as any "path." The writer asked Dr. Douglas, the Dean, at the close of the session of 1865-6, whether he would be a fit subject for graduation, being a homeopath, if he continued in attendance. The Professor replied in the affirmative provided we had studied under a graduate of the REG-ULAR school! The Prof. was kind, but positive. We graduated elsewhere. Fish.

The article on "Sociology" is long, but deserves careful reading and study. It is impossible to cut off any part of it, and leave it readable and instructive.

We are very grateful to those who have taken the trouble to return the Advance, when they did not desire to subscribe. We wish, but could not expect, that all would send their \$3. A few returned the Journal without indicating from whence they came. Please send the name at the time of returning.

The article on "How to obtain the skeletons of Small Animals," by Prof. Bronson, was placed under the head of "Surgical Pathology," which department the Prof. has in special charge. It should have appeared among Miscellaneous articles

"OPERATIC PROCEDURE" is what they call it up in Chicago. In these parts we have to get along as best we can with the old fashioned "operation."

A good homœopathic physician is wanted at Saranac, Mich. Address Dr. John Outwater, of that place. We are also informed that there is a dearth of Homœopathy in the wealthy and time-honored city of Newburgh, N. Y., a city with a population of about 18,000.

This is from one of our most thoughtful men: "Why are so many of the periodicals of our school seemingly pale and sickly? Because they run in the ruts of the old school periodicals—too much imitation in arrangement, style of composition, and partizanship. There are also reports of cases that do not endure criticism, and there are useless details of proceedings of societies. Long articles in a journal are read by the few only. You can make your journal necessary to the physician, and I believe you will."

SINCE PHILOLOGY has risen to the dignity of a science, men of learning everywhere are interested in everything that pertains to the past or future of languages. President Grant, in his late inaugural, has placed himself definitely on the record as one in certain expectation of a final universal nation, that shall speak one language. Has then the sin of the Tower of Babel been condoned? And is the union of all medical schools into one harmonious whole, as set forth by late humanitarians, a part of the process by which this millenial day is to be brought about? Who can tell?

- J. T. WILLIAMSON. By an oversight the name of Dr. Williamson was omitted in the list of the graduates of Pulte Medical College.
- DR. C. J. HEMPEL's striking and well-known face beams out of the frontise of *The U. S. Medical and Surgical Journal* for January, 1873. The Doctor's history, fully and carefully written, may be found in the same number.

The valuable article of Prof. Owens on "Ulcerative Absorption of Bone" is delayed till next issue. "Solubilities," in Department of Chemistry, is also unavoidably delayed.

Dr. Rey urges upon the inhabitants of malarious districts the adoption of every safeguard against becoming chilled. He considers the chilliness so often felt in warm climates at sunset, as very pernicious and agrees with all authorities in pronouncing cold with damp to be exceedingly dangerous.

OUR LETTER BOX.

We have no cause of complaint at the reception given by our friends to the first number of the ADVANCE. Those who have kindly returned what they did not want are entitled to our thanks. We shall try very hard to make them sorry before we are done. Those who have promptly remitted their subscriptions are deserving of our deepest gratitude, and those who have added good words of chear to their patronage will never know how much we are their debtor.

"Permit me," says one, "to congratulate you on your new journal. The Advance is worthy of you, and I sincerely wish you and it all honor and success."

Another says, "I received the first number of the ADVANCE. Upon consideration that you do not insist upon our accepting Darwinism—at least not farther back in the line of evolution than where we drop the caudal appendage, we go it and send for the ADVANCE."

This gentleman is pretty severe on young doctors, and should any one feel agrieved at the severity of his remaks, we hope there will be no bashfulness shown in replying:

"A copy of the "ADVANCE" is received. I am well pleased with the first number. If it is kept up to that standard it must certainly give satisfaction. There has been one great fault with journals, also societies. A great many unworthy persons that are incompetent to report a case, to say nothing of their incompetency to treat it, will write a great flourish over some terrible case they have treated, and get some journal to publish it. It will give no one a definite idea of what the case was, and the treatment, as a matter of course, is unreliable and not authentic for the case named. This is apt to be the case with young Physics, who have the itch to see their names in print. There is another class I cannot call "Physics," but I think Squirts* more appropriate, who are but partially fledged, and will worm themselves into the societies to get the benefit of those who have given a life of toil in the profession. It has become disgusting to have our medical societies filled up with that class of men, and our journals lumbered up with articles so unreliable. There is an allopathic society in this county, and one of their prominent members is greatly prone to exaggerated reports.

^{*}There should be a modified cusa word for that class.

For instance, a case of Asiatic cholera is reported. It proved to be an old man who ate quite a lot of cherries without seeding them, and the seeds became impacted in the bowel; inflam mation and death was the result, and it was reported as a case of cholera to the society. I can instance some nearly equal reports to the above in the homeopathic ranks. We want "Good work, square work, and such as will entitle us to wages." Then will physicians rely upon each other—probably we will never see that day.

C. B. Herrick.

PERSONAL.

Dr. J. H. Pulte, who has for a long time been very dangerously ill, is now very rapidly recovering.

Dr. O. B. Moss has moved to Springfield, Ohio.

Drs. G. W. Moore and M. O. Terry have formed a copartnership at Ashtabula, Ohio.

Dr. G. D. Jenny has located in Kenton, Ohio.

Dr. J. T. Williamson has settled in Newport, Ky.

Dr. O. W. Lounsbury has opened his office on Seventh Street, Cincinnati.

R. Dorsey Poole, M. D., has located at Louisville, Ky.

Dr. E. W. Crookes has located at Belleville, West Va.

The Pulte Clinical Prize, of \$75 cash, was awarded to Dr. E. H. Price, of Chattanooga, Tenn., for best examination and report in Clinical Medicine.

Dr. T. F. Spittle locates in Piqua, Ohio.

Dr. W. L. McCreary settles in Greenfield Ohio.

Dr. C. F. Park enters in co-partnership with Dr. Cushing in Elyria, Ohio.

— Dr. Blake and Judge Hastings, two scientific gentlemen of California, announce the discovery of a current of electricity running north and south at a distance of 150 miles from the Pacific, along a belt of metallic deposit, which is a conductor from pole to pole.

The Homoeopathic Medical Society of Ohio meets the second Tuesday in May, in Columbus. Are the officers asleep—else why should they not stir up the Committee and the profession?

The Bureau of Ophthalmology and Otology of the American Institute requests, of the profession, contributions to that Department. The subjects are new and important. Any of the members will receive articles or useful information and give due credit.

REPORT OF THE CINCINNATI HOMEOPATHIC FREE DISPENSARY FOR THE MONTH OF APRIL.

Medical Department-Neuralgia, 9; Skin diseases, 10; Uterine, 11; Gastric, 7; Abscess, 3; Rheumatism, 9; Throat, 5; Cough, 17; Constipation, 3; Diarrhea, 3; Cerebro-spinal-meningitis, 2; Scrofula, 3; Miscellaneous, 25. Males 32; Females, 66. Whole number, 98.

J. H. CHATTEN M. D., Resident Physician.

Ophthalmic and Aural Department—Cataract, 3; Amblyopia, 1; Aural Catarrh, 3; Glaucomia, 1; Trichniasis, 2; Abscess lid, 1; Iridectomy, 1; Otitis Media, 2; Keratitis, 1; Caulhoplasty, 1; Irido-choroiditis, 1; Asthenopia, 1. Whole number, 20. No. of prescriptions, 42. White, 17; Colored, 3.

T. P. Wilson M. D., Surgeon-in-Charge.

HAVE YOU SUBSCRIBED FOR THE ADVANCE? All we want is the means to carry forward this enterprise. The editors and contributors are working for love-and glory; but money is the sinew of our war, and our ideas of advance includes prompt remittances from our friends.

Our "Advertising Agent," requests us to announce that Geo. E. Stevens & Co., are not responsible for the typographical error in his adv't, last month. The publisher is broad shouldered and is inclined to share the burden with the printers. "Respectfully" makes better sense than "respectively." That does not alter the fact that Geo. E. Stevens & Co.'s is the place to buy your books.

We especially invite attention of physicians and surgeons to the advertisement of Wm. Autenreith.

Prognosis has its limits. It is based upon clearly perceived facts, which naturally arrange themselves, revealing to the experienced eye a true judgment of the future. Prognosis does not admit assumptions, nor probabilities, nor guessings. When any of these, in any degree are admitted, prognosis is uncertain, unsafe, useless and often pernicious. Pretense in skill in prognosis, is the power in the defectively educated physician, in the quack, and in the advertised drug compounds.

THE

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CINCINNATI, O.—MAY, 1873.

INO. 3.

Subscriptions to the Advance should be sent to Dr. T. C. Bradford, P. O. Drawer 1284, Cincinnati, Ohio.——\$3.00 a year, IN ADVANCE.

All communications for publication should be addressed to the General Editor, "T. P. Wilson, M. D., Corner 7th and Mound Sts., Cincinnati, Ohio;" or direct to the Editors of Departments.

All business communications, relating to the publication or to advertising, should be addressed to Dr. E. W. FISH, 148 West Fourth St., Cincinnati, Ohio.

TEMPER.

We take peculiar pleasure in reproducing with indicated modifications, the following article from the American Newspaper Reporter:

[Scientific] questions should be discussed with coolness. The object is to arrive at the truth. Crimination and recrimination are of little use at any time. They are particularly out of place in [scientific liscussions.] We all intend to live, if we can live fairly and honestly, and no man can say, in this country, at least, that there is not room enough for all, and opportunity for a free discussion of all disputed points. Those who get angry in discussion are apt to become warm at the wrong time. It is often the case that by a little patience, by a moderate effort to understand the meaning of our opponent, we find that we can agree with him. No class of men are called upon by higher obligations to retain an even temper than those who conduct [public discus-

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sions.] It is true that, like all men, they have many things to ruffle it. Essentially a business [requiring great care in study;] a business that exacts hard and constant labor, and, that returns [no equivalent in money]; abusiness, too, in which mistakes and errors are of constant occurrence, despite all precautions, it is withal a business most trying to the nervee, and one in which much labor and many [new and valuable discoveries] pass unappreciated by those who benefit from them.

There is the more reason why the [writer and reader,] should train themselves to self-command and to the consideration of the real merits of a question.

As for results, they must be accepted. When they are the natural consequences of [well substantiated facts,] no amount of effort or of temper will change them. Where they are to be attributed to [ignorance,] time will always do more than words. It will do very much more than temper.

But all [those who discuss scientific questions] should avoid excitement for other reasons, not the least of which are, that in these cases men say either what they do not mean or more than they intended, or something which may be untrue or unjust, and which, if conscientious, they will sooner or later regret.

LIFE WITHOUT WINTER.

We are often requested to tell what we know about climatology. "Where," the anxious consumptive asks, "shall I spend the winter?" This question is of equal importance to the dyspeptic, and to those nervously prostrated. Perhaps the following may help to solve the query:

Mrs. Beecher Stowe writes from her winter retreat in Florida: "We hear that the hotels and boarding-houses on the river are beginning to be thronged, and no wonder. What is the use of a glorious Union if one doesn't use its choice of climates? Shall people buy rocky bits of land on the shores of the Atlantic, and put up houses at the coast of tens and twenties of thousands for two month's summer bathing, and neglect the better chance of winter home for six of the severe months of the year? Every year, as we come down, we count new houses rising on

the shores of the St. John's, attesting the progress of common sense in this direction. Many a delicate consumptive, many a dyspeptic and nervous invalid might be saved to a long life of enjoyment merely by dropping winter out on the category of things to be endured. As to expense, two hundred dollars invested in an acre of land, and a simple, inexpensive cottage, would be speedily made up in the cost of fuel for a Northern winter. One lives here so simply—the requirements of dress and society are so few, that, even counting traveling expenses, it is asaving to be here, if health and happiness are left out of the question. The life of Northern cities is over-stimulated, and we really never know what rest is till we come here. Then the whole hot, busy, anxious, running, racing, breathless North fades away into the most graceful, pearly tints of blue distance. We feel almost as souls may that have passed the great river and turn to look back on the shores of life. All is peace. A thousand anxieties drop like a mantle. Voices of hot haste and mad hurry die in the distance. Slanders, gossips and scandals are things of the past. Do the red birds understand them? Not one whit. Will the mocking bird care for them? Not he. While we write a great yellow butterfly, a living air blossom, is gossiping round the gilded wires of the bird cages. There tulip and opal and rainbow are chippering to each other, and a bright vellow canary is giving lessons to the three in operatic singing. What can be more beautiful, more dream-like, than the life of a butterfly? Does it remember when it was a poor, crawling worm'? With such ecstacy let us hope some poor, faithful souls, who have crawled over one little damp spot of earth, faithful over a few things, will burst forth when death breaks their prison. Fancy a poor soul who never did any thing but make shirts at five cents a piece released and floating about in such ecstacy of life as this."-[Christian Union].

Mr. W. C. Bryant writing from the same state says: But there are some indications of growth in East Florida. Thirty years ago, when I visited it, Jacksonville, on the St. John, was known only by its single orange grove just planted. It is now a thriving town of four thousand inhabitants or more, and two hotels, at this season full of guests. I have just returned from

St. Augustine, where thirty years since I passed nearly three weeks. It was then almost bare of trees, the orange groves by which it had been overshadowed having shortly before been killed by a severe frost. It has lost something of its ancient aspect; a few new houses having been built, among which are two hotels, but its orange groves have been renewed and they are now in bloom, sweetening the air for a great distance around them, and the mocking-birds are singing among their branches. At present the place is suffering a Northern invasion. All the hotels are crowded with guests, and every spare room in town which can be had for money is occupied by persons sent from the hotels, and still the tramroad over which the vehicles are drawn by mules, on wooden rails, brings every day its fresh loads of visitors. Whatever may be the fortune of the rest of East Florida, this place is likely to flourish on account of the purity of the air and the benignity of climate, and to become the great winter watering place of the United States. In a few years it will probably part with nearly all that is left reminding the visitor of its Spanish origin—its narrow streets, its high garden walls of shell-rock and its overhanging balconies-all but its fine old fort of St. Mark—and look like any other American town in the Southern States, saving its orange groves and the date palms, which, planted within thirty years, are now beginning to peer over the roofs of the houses. It will then be the resort of invalids who need not only a mild climate, but the open air; and not of idlers, who come to bask in the sunshine of this softer climate and these serener skies. For the sunshine here has been almost perpetual since we entered Florida, and although the climate here sympathizes in some degree with that of the Northern States, and the great snow-storms of that region chill the air even in these latitudes, vet they only make one the better for a brisk walk, and are a relief from the feeling of enervation which attends one of the warm days here.

[&]quot;BROTHER JONATHAN" PETTET M. D., is the in cog, editor of the Ohio Medical and Surgical Reporter. He deserves great credit for the ability he displays in this new role. We trust his name may be brought to the front in spite of his natural modesty.

Prof. T. S. HOYNE sends us a neatly printed copy of his Valedictory Address. The good things in it are many. When he says: "The diplomas of our institutions are not generally recognized abroad, for the reason that the instruction [in those institutions] is not as thorough as it ought to be You may feel proud therefore of the diploma, which the Trustees of Hahnemann Medical College have just bestowed upon you through the President, and which you now hold in your hands, for it is recognized in England, Germany, Australia and Canada," is the Professor soberly stating an important and anomalous fact, or is he playing on the credulity of his hearers? Has the H. M. College a patent of this sort not accorded to the other colleges? Our experience is that a sensible American physician going abroad, does not need to travel on virtue of his diploma any more than he needs to travel on the strength of his muscle. out all Germany, Ich bin eine Americana doctor, are the magic words that make an open-sesame in all the schools, hospitals, and clinics. And the same expressed in French or plain English, or Italian or Spanish, will be equally patent elsewhere. The doctor who would go abroad with his diploma under his arm, and parade it as a certificate of his good character, would be doubtless mistaken for a ticket of leave man, and treated accordingly. We make ourselves ridiculous by putting on airs of gentility. Prof. Hoyne would not have us do that, but his words may mislead some, not so well informed.

Dr. J. H. Mullin (Eclectic Medical Journal,) gives as a valuable formulary for Cough Balsam the following: Tinct. Lobelia Inflata, Tinct. Macrotys, Tinct. Sang., Infusion Hydrastis as oz. iv, Tinct. Xanthoxylum Berries, oz. iv, Sudorific, Tinct. oz. iv, J. Wilson's Anodyne drops (made of Tincts. Myrrh, Capsicum, Liquorice, Ginger, Lady Slipper, aa,) oz. iv., and half the quantity Camphor Spirits. The doctor recommends it on the grounds that "it is cheap" and "easily prepared." Nothing is said of its extraordinary simplicity, or the case with which it may be taken. These are minor points to a doctor desirous of giving a "cheap" medicine. If he had added that it was as nasty as it was economical he would have left nothing more to be desired.

THE LAWS OF SEX,

Mrs. Mary Treat (Herald of Health) gives an interesting report of experiments upon butterflies by means of which she discovered the means of controling the sex of the insect. Taking the larvæ indiscriminately she divided them into lots, some of which she starved and others she gave abundance of food:

"On the 25th of June one lot of eggs hatched, on the 10th of July they were chrysalides, and on the 18th of the same month the butterflies appeared—only requiring twenty-three days for the complete transformation. On the other hand, I have had this same Asterias butterfly eleven months in coming to maturity. Some larvæ hatched in August, 1871, I fed eight weeks; but the nights were cool, and some days were absolutely cold, when the larvæ would not eat. These chrysalides I preserved during the winter, and early in June, 1872, I put them in this same warm room in which the larvæ grew so rapidly, and they were in this room some two weeks before the first larvæ of this season were hatched; and strange as it may appear, some half dozen butterflies of this year's brood came out before these last year's chrysalides produced butterflies.

"Very soon after the last moult I shut a number of the larvæ away from food, putting them in paper boxes, from five to ten in a box, carefully labelled. If at the end of two or three days the larvæ were still wandering about, I fed them sparingly. In this way I did not lose a single specimen in the larvæ state by shutting away from food. A few of the chrysalides died.

"It was with the most intense interest that I watched the coming forth of the butterflies, which began to appear in about eight days after assuming the chrysalis stage. Thirty-four males came from my male boxes, and then a rather small female made its appearance. Out of seventy-nine specimens that I labelled males, three females were produced. On the other hand, those that I fed up, keeping them on a good supply of fresh food. I labelled females, and placed them in separate boxes. Out of these boxes sixty-eight females came and four males.

"There were some boxes that I marked doubtful, which I do not include in the above figures. For instance, I took five larvæ that were eating vigorously; if let alone they probably would

have eaten a day or two longer, but I wished to try them in all stages of growth, and these were of quite a large size. Out of these five four were females.

"Soon after the last moult I took twenty larvæ and shut them away from food for twenty-four hours. At the end of that time I replaced ten on a supply of food, watched them carefully, and kept them eating until they attained a large size; they became chrysalides within a few hours of each other, and emerged as butterflies eight days after. One of these chrysalides was accidentally crushed; the remaining nine were females. Of the starved, eight males came out; the remaining two chrysalides died.

"The butterflies as fast as they made their appearance were killed and pinned up, the males arranged on one side, the females on the other—a most brilliant display, covering a much larger space than one would be apt to imagine.

"It would seem, then, as the result of the whole experiments, that sex is not determined in the egg of insects, and that the female requires more nourishment than the male. Nor does this appear strange when we consider the reproductive nature of the female. It has frequently been said to me; 'If your theory is true it makes the female superior to the male.' I believe it has always been admitted that the female gives birth to the young. If this is considered superiority, then the female is superior; but if beauty of form and color is taken into account, then the male insect is superior—the same as with birds and the higher animals. Carry the analogy further—up to human beings—and still we find the principle holds good."

GAROTTING AT GUY'S HOSPITAL.—We read in the Guy's Hospital Gazette, of a class of cases which in the opinion and according to the practice of the writer, "are benefited by being garotted." "One night." this gentleman relates, "going round the wards I found a girl in a hysterical fit; she fought and struggled vigorously with her nurses. Hating all rows, I grasped her throat and held it firmly till the astonished girl gasped out, 'You are choking me!' I then relaxed my hold and promised her a repetition of the performance. She was thoroughly cowed after

having two more fits, and, being twice nearly choked, her alarm was so great that, though every night previously she had fits, she desisted, and in a month afterwards her mother told me with joy of her complete recovery. A few days later Mr. Stocker, whose experience is immense, told me how beneficial this plan was, and said, 'You may remain for hours fighting with a screaming girl, but carefully choke them and they immediately subside -it is unpleasant for them, it frightens them." The italics are those of the accomplished proficient in the art of choking. It is a great pity that this valuable contribution to medical science is not entirely complete. In case the paroxym is not controlled by the patient being "nearly choked," we would naturally infer, and it is indeed very reasonable to suppose, that success would crown our efforts if we carried the treatment a little farther and ewite choked the patient. The muscular doctor will be glad to know that the same principle has been lately carried out in the New York Hospital, where the approved method was to tear off the clothes of the patient, prick her with lancets, drag her around the room and best her. The case treated thus in the New York Hospital also recovered, but her mother did not come back " with joy " to tell about it, although the treatment was, no doubt, "unpleasant." In the Lunatic Asylum, on Ward's Island, the same treatment has been carried out even more thoroughly. The cases permanently cured have all been buried, and those under treatment are doing as well as could be expected. We suggest to the Governors of New York Hospital, and to Commissioners of Charity, that a professional garotter be added to the medical staff of all our hospitals, and that Mr. Stocker, "whose experience is immense," be induced to communicate his views to the profession at large as to the best methods of quieting nervous excitement.—[Medical Union.]

Dr. J. M. Scudder says that abounding in superlatives "is an Eclectic failing, that we would do well to get rid of." The honesty of that statement is surpassed only by its truthfulness. But there is no need of confining it to one school of writers. We know others that have the happy faculty of putting a few ideas into many strong words.

MR. JOHN ANDERSON astonishes the world in general, and Prof. Agassiz in particular, by presenting him a beautiful island in Buzzard's Bay on the coast of Massachusets, upon which island the Prof. is to establish the Anderson Scientific School. No gift could be more timely, or put to better uses, unless it might be that some equally benevolent soul should endow an homœopathic school for the development and perfection of the Materia Medica.

The good that might be done in this direction should be kept constantly before the people. Not one doctor in a thousand has time or inclination, or indeed, any business to prove remedies. With a school amply endowed for the work we might do in ten years, that which will be scarcely done in a century. Let us keep this ball rolling until some wise and wealthy man, or woman, places the means at our disp sal.

An unknown friend sends us documents from the Society for the prevention of Cruelty to Animals. Is this because our beast is lame? Or is it because doctors who read our journal are notoriously hard on horses? Take warning good readers, judgment may overtake you in this world, as it will pretty sure in the next, unless you remember that horses have bodies, and according to good authorities souls also, and are entitled to the courtesies of merciful ownership.

Dr. W. H. Saunders reports to the *Observer*, "the first clinical case resulting *unfavorably* in my practice." Query, what other cases has he than clinical, and how long and how much has he practiced? Knowledge upon these points would help us.

The Legislature of Michigan having passed an act for the establishing of two professorships of homeopathy, in the State University, a meeting is called for the purpose of selecting suitable persons to fill the chairs. The time of the meeting is May 7th, and the place, Ann Arbor. Dr. S. B. Thayer, President, of Battle Creek, or Dr. J. N. Eldridge, Secretary, of Flint, will give needed information.

Theory and Brackice.

DISEASE AND ITS REMEDY.

A physician's chief work is to investigate and prevent, or cure disease. He may be well informed on other matters, and should • be; may study the principles of law, politics and religion; may unfold the mysteries of "development" in general, if he can, or theorize, if he can not,—in all of which let him not be afraid of the truth, believing that he will be safer in the truth than any where else but his chief labor is to know and relieve the pains and sufferings of diseased humanity. I propose to write something in relation to this.

Disease, according to the primary meaning of the term, is merely a departure from ease, and is therefore pain or distress.

The name appears to have been given on the assumption that health is but a free and easy movement of all things in the mind and body. The term Disorder, also, is frequently used to denote the same thing, as if dis-ease were the result of the want of order somewhere. And then we find the term Illness in perhaps as frequent use. Now illness means badness or evil, as if the cause of disorder and pain were to be sought in some form of wrong doing—in the violation of natural, moral or spiritual law. The consciousness or instinct of our ancestors appears to have thus reached more deeply into the nature of the subject than they were perhaps aware. While they looked upon disease as a direct and unavoidable infliction from the chastening hand of Divine Providence, they gave it the proper scientific names.

Disorders are called acute or chronic. Acute signifies pointed, sharp. Acute diseases, therefore, are those which are comparatively brief and violent.

Chronic means endowed with time, and is applied to diseases which continue long.

Sporadic (separate, single,) refers to disorders which attack one person instead of many at a time.

Epidemics (upon the people) are disorders which attack many at once, or during a season.

Endemics (in the people—domestics) are disorders which are peculiar to a people or country, originating at home instead of coming from abroad.

Symptoms (a term that simply means happening together) is applied to those unpleasant or evil things which indicate or constitute disease. They seem to be the ultimate, outer, or lower forms, which in certain combinations indicate certain diseases. It has been found from time immemorial that they appear in special groups, somewhat modified, but essentially the same in different nations, and from age to age. The different groups are called by names which are supposed to be appropriate, and are thus known as particular diseases.

These pathological symptoms (symptoms of suffering,) which go to form the groups, are not very numerous, but may be combined, like letters of an alphabet, in many ways. A considerable number, perhaps most of them, are found in several of the different diseases, as in the various kinds of fever. The character or constitution of a disease, therefore, frequently depends not so much upon the kind of symptoms which compose it, as upon their manner of combination.

I propose to examine the record of a portion, perhaps most of the common diseases which afflict mankind. I do not wish to encumber the work with an account of the discussions, surmises and mere opinions, which enter largely into many of our works on practice, and which make a large portion of their bulk. design is rather to pursue a course analagous to one adopted some years ago in relation to the chief drugs of our Materia Medica,which was to plod through, not only the records of our "provings," but through former records also, noting and recording in our course through each drug the first well established effect we should find, that is, which had so frequently or directly followed the exhibition of the drug that it could not reasonably be supposed to have come from any thing else; and then, if the next effect or symptom we should find, established also in the same way. should appear upon reflection to be really another thing, it should likewise be recorded, but if merely a different statement or wording of the same drug symptom, we would leave it and go on. Thus we proceeded step by step, working attentively for the established facts alone, without dilution or repetition, until, having

passed through the record of the drug in different standard works, we endeavored to arrange the symptoms obtained, according to the order of their development in the system if any sort of order was manifest, or to classify them according to their corresponding qualities, or to follow the order of their effects upon the body, as through the digestive, respiratory, circulatory, or nervous system.

I shall attempt now to go in a similar way through the records of our common diseases, for the purpose of noting all that belongs to them-and nothing more. I shall seck to retain all the well drawn conclusions and established facts, but redundancy of words must be avoided. And here is where our books appear to be faulty. They are voluminous, but in describing particular diseases fail in giving all the symptoms which properly belong to them. The books are too large while they contain too little. Such at least appears to the case with regard to the few diseases already examined according to their records in our text books. No single record is found to be anything like complete. here is vastly different from that of drug records in our Materia Medica, for in them a similar examination disclosed such redundancy that when some of our purified lists were published, a number of worthy practitioners cried out in alarm against their brevity and supposed incompleteness. And yet when these good which men were invited to name any well established symptoms were not really included, they failed to do so:

And then, after thus recording all the symptoms which properly belong to each disease examined, we desire to adduce from our record of well established drug effects, those items or groups which merely cover the symptoms. There is need of this, for perhaps no greater confusion comes from any quarter than from the failure of our books at this point. Let an example serve to illustrate the fault, and show the need of its correction. Take one of our best authors on one of the most clearly marked diseases:

The symptoms of cholera, as given in "Raue's Pathology and Therapeutics," are the following: "Rice-water discharges upward and downward, the patient thereby losing fluids while he gains none; whereby the blood becomes dark and thick, and then black, tarry, sopy, semi-coagulated; whence all the tissues become dry and reduced in volume; the nose becomes pointed, cheeks fall

in, eyeballs sunk back, skin wrinkles on the fingers and if pinched up, remains; exudations or moist eruptions dry away, and tears. saliva, sweat, urine and bile disappear; there is feebleness and faintness of the heart's impulses and sounds; small, feeble, faint pulse; skin blue everywhere, tongue blue; anguish for breath, and hunger for air, deep inspiration and short mouning expiration; cold breath; voice rough and coarse; imperfect articulation; tonic spasms or cramps, which contract the muscles into hard. round knots." These are all the symptoms given by this author. accompanied, however, by explanatory remarks, which may be and probably are correct. Now if he has given all the characteristic symptoms of this disease, he should in his statement of the treatment, refer us to the drugs, and the drug symptoms which fully and clearly cover the ground, and to no others, if he would avoid confusing our minds with matters which do not pertain to the subject. But, in his "therepeutic hints," he recommends.

Bryonia, when there is "diarrhea in the morning after getting up, with previous cutting pains in the bowels." Now, I do not know what to make of this. He told me nothing, in his description of the malady, about cutting pains in the bowels. If they belong to it as characteristics, why did he leave them out? If they do not, why is he directing my attention to them in the treatment? Nor was there anything in his account about diarrhea particularly in the morning after getting up. This puzzles me turther, and for similar reasons. He has directed my attention to this remedy for symptoms, not one of which has he given as characteristic of the disease!

Mercury is recommended when there are "bloody, slimy discharges, with tenesmus," but however characteristic these may be of mercury, he did not give them as characteristics of cholera. Nor indeed are they. Did he not himself state the characteristic diarrhea as rice-water?

Veratrum album is recommended for a group of some eighteen symptoms, the following ten of which are not to be found in his description of the disease: Anguish; fear of death, or indifference, vertigo; face distorted, bloated; cold feeling in the abdomen; colic in the bowels; great thirst; tongue pale, yellow coated; cold all over; cold perspiration.

Thus in the list of symptoms given by the author as calling for this great remedy, more than half bear no relation to the disease as he described it. Some of them, however, are doubtless really characteristic, and should therefore have been given in the discription. But one of them at last (bloated face) contradicts the essential idea of his whole account, which is that of general shriveling, or drying up. Now, the indications given for about twenty five other remedies would bear examination no better!

When shall we have a text book that will clearly, fully and briefly state the known symptoms of each disease, and designate the well established drug effects of the remedies which correspond to each? When shall we have the simple whole without needless repetition or redundancy? The materials are already collected and are waiting for a suitable worker. Where is the man?

It is true that diseases are often complicated, that symptoms appear which do not properly belong to them, but which need attention nothwithstanding. Should not the model text book make provision for these? If, for instance, a patient with the cholera should have bloody, slimy discharges with tenesmus, should not mercury be designated as the proper remedy? Yes, but who should designate it and when? The practitioner should always have his eyes open for complications, and if dysentery prevails in the neighborhood at the same time he ought to look for such a symptom among those which properly constitute the cholera group, and should understand his Materia Medica well enough to know how to treat it. But the writer of a text book can not foresee that this or any other foreign symptom will appear in this or any other disease, and if he could, he should not confuse the reader by referring to it, when he speaks of the treatment, as if it pertained to the disease itself. Let him present a full statement of whatever disorder he has in hand, and show how to treat that. Let him also, if he chooses, tell the practitioner to look out for complications, and then let him leave the matter. He has done all that he can properly do. There is nothing more in his line.

These apparently digressive illustrations appear necessary to explain the nature of my proposed attempt with regard to some of our common diseases. How far I may go in this direction remains to be seen.

L. Barnes, Delaware O.

THUJA FOR THE EYE.

Patient nervo-sanguine, young man, dark complexion, of good habits. Congestion of conjunctival covering of sclerotic tunic of eye sfrom childhood. Sight unimpaired, health excellent, and no inconvenience resulting from the congestion save the annoyance caused by the redness of his eyes, which was marked, if disturbed of his usual rest nights. Came under treatment for slight attack of Prurigo; when Thuja was indicated, and a powder of 3rd prescribed every two hours. Three days later saw patient, found the local affection improved, and the sclerotic restored to nearly its normal whiteness. Had not considered the disease of the eye in giving Thuja, and was as much surprised as the gentleman was pleased at its result.

A. K. F.

CLINICAL NOTES.

Dr. J. H. Gallinger (N. E. Medical Gazette,) reports an interesting case of poisoning by arsenic, from a red and black carpet, from exposure in putting down the carpet, and from subsequently sweeping it, the mother and daughter were made seriously if not fatally ill. Analysis by the State Assayer revealed the presence of a large quantity of arsenic in the fabric. Doctors should be on the look out for dangers of this sort. Can we be protected by law?

Dr. Henry Tucker, (idem) case of vomiting lasting three weeks following the taking of a large quantity of powdered Ipecac. Gave Puls, 12, four doses a day, with relief on the third day, patient had cold hands and feet; wanted to keep near the fire; felt best when walking in open air.

DR. A. W. WOODWARD, (U. S. M. & S. J.) thinks we have a prophylaxis for Hydrocephalus. Following Grauvogel's instruction in cases where a child has suffered from this complaint, he puts the mother during her subsequent pregnancies upon the use of Sulph. and Colc. phos. adose of each on alternate days. The result is that the children born are healthy and survive dentition, and escape brain disease. If this be so it is worth thinking about.

Materia Mediea.

PHOSPHORUS.

From an able and very interesting paper or "The Influence of Phosphorus on the Organism" read by the author Dr. George Wegner before the Berlin Medical Society in November 1871, published in Virchow's Archives, and reproduced in the British Journal of Homeopathy, we condense the following statements, as the results of many observation and experiments: 1st., "The interest which the medical profession at present attaches to Phosphorus relates essentially to its action as a poison with women. Poisoning with phosphorus enters the arena as successful competitor of the formerly tavorite mode of suicide by drowning." "Sitting in the sombre melancholy kitchen" says the doctor, "with the matches so close at hand, how much more easy is it to take a sip from the familiar teacup than to seek out the cold stream for the fatal leap."

The almost absolutely certain deadly action of the poison, the facility with which it may be procured, its hidden, silent and (generally supposed) painless mode of action, the fact that it does not deface, thus preserving the feminine sense of the beautiful, are circumstances which have made phosphorus the momentary fashionable poison with the ladies. More especially those who are unhappy in their love.

2d. Pathological changes from poisoning by phosphorus:

It is not only the central organ of the circulatory apparatus that is involved in the fatty degeneration, but also the peripheral parts of the arterial system even as far as the minute microscopic vessels. This fatty degeneration of the parietes of the vessels can be observed in all the organs, but most easily in the brain, in cartilage, in the marrow of the bones and in the liver. The principal symptoms of this process are the sanguineous extravasations in the different parts of the body. Only in one case do these consequences become clinically and pathologically, visible viz., when in a female person the poisoning occurs just before the menstrual

period, the physiological hyperæmia of the sexual organs attacks the parietes of the vessels which are lowered in their power of resistence by the fatty metamorphosis, and the hæmorrhages become more severe, often so severe that general anomia is the consequence.

3d. That gastro-arteritis resulted from its long-continued use has been pretty well demonstrated clinically.

Dr. Wegner remarks further "that while our knowledge of the changes brought about by acute poisoning with phosphorus, is so exhaustive that in all probability the immediate future will hardly be able to bring much new matter to light, still but little is known of the influence this substance, which is so dangerous in certain doses, may develop when given for a considerable time, for weeks or months, in smaller and not deadly quantities."

Just here the Homeopathic provings come in and supply the needed knowledge, as to the effects of non-poisonous doses, the action of which has been permitted to continue for a long time. And it is specially worthy of observation as evidence of the correctness of our pathogeneses, that our smaller doses in the hands of competent provers produce symptoms strikingly confirmatory of the results obtained in greater degree in the larger doses, and in addition thereto we have the results not obtainable, as Dr. Wegner admits, by the administration of the poisonous doses.

On the other hand the knowledge gained of the pathological changes in the tissues acted upon, explain to us the way in which some of the objective symptoms are induced. For instance, phosphorus is known to produce hæmorrhage, and is regarded in our branch of the profession as a valuable remedy in the hæmorrhagic diathesis; and the researches of Dr. Wegner show us that the hæmorrhage is occasioned by the action of the phosphorus on the arterial coats, producing therein fatty degeneration.

4th. In regard to the action of phosphorus on the pulmonary organs, it seems that it is in the form of fumes, such as arise in the match factories, that its influence is exerted.

Its connection with the development of phthisis must be considered with reference to the other factor in the production of phthisis among this class of persons: viz., the usually poor diet to which they are restricted. Experience however seems to demon
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strate that when there is a pre-disposition to gastric, and bionchial catarrhs, and at times, also, to secondary pulmonary affections, the fumes may call them into action.

5th. The connection between periositis of the lower jaw, and the fumes of phosphorus are clinically conclusively proved.

Action on Stomach and Liver.

Very small doses administered to rabbits, cats or dogs, either by the stomach, or by the inhalation of fumes, seem at first to produce but very little influence. If the dose is gradually increased so that no acute or subacute poisoning arises, very remarkable changes take place. At first, in the stomach the mucous membrane becomes hyperæmic; it swells; hæmorrhages occur here and there; real hæmorrhagic impactions are found later on, especially on the summit of the natural folds; flat, pus-like ulcers are formed, whose dirty brown margin and floor show their origin. After the irritation has been going on for months, the mucous membrane becomes ndurated, and of a diffused smoke-gray, or brown coloration, that is most evident at the fundus. Here the microscope shows whole masses of pigment, in the form of black-brown granules, imbedded in the tissue, the glands are prolonged, and the interstitial connective tissue, which in the healthy condition is scarcely demonstrable, becomes developed into thick broad threads.

Alterations in the structure of the liver, go hand in hand with these. While in acute poisoning it is the hepatic cells that are principally affected, in chronic poisoning it is the interstitial tissue. The whole organ is swelled, and feels harder, and within it and in the connective tissue, around the portal vessels, there is an intense cellular hyperplasia; and further, tough fibrous connective tissue is developed from the young cells, constituting a more or less broad stratum at the periphery of the acini.

Influence on the osseous system.

That part of the body on which phosphorus in the second place, exercises a prominent influence, is the bony apparatus. To begin with, we must separate those cases in which the more or less considerably concentrated funces of phosphorus come into immediate contact with this periosteum, and those in which minimum quantities of phosphorus in substance, (probably in the form of vapor,) are taken up by the blood, and circulate in relatively high at-

tenuation in it, and, by means of the vascular system, are indirectly brought into contact with the osseous tissue.

Under the influence of phosphorus, a tissue is formed in all those places where physiologically, spongy osseous substance is developed from cartilage, having wide meshes and much red medullary tissue, that seen with the naked eye appears perfectly homogeneous, solid and compact, just like the osseous mass in the cortex of long bones. We see this in the processes, in the epiphyses, and apophyses of cylindrical bones, in the vertebræ. inclusively of the cranial vertebræ, in the ribs, in the scapulæ, in the pelvis, in the tarsus and carpus bones, etc. The longitudinal section of cylindrical bone seems most instructive, I saw it best in such a section of the humerus of a calf with whose food phosphorus had been mixed for eight weeks. In this specimen there was a large zone of apparently perfect compact osseous tissue, whose heterogeneity as compared with the normal condition was very striking, extending from the intermediate cartilage of the upper epiphysis. Also a similar but narrow zone, in the epiphysis. in its entire circumference, where cartilage and bone meet. The same in the caput and tuberculum majus. The layers correspond in height pretty nearly to what under ordinary conditions is developed from the cartilage as spongy substance. That part of the spongy osseous tissue, which was developed before the fading began, remains perfectly unchanged. The absolute height of the phosphorus layer is not equal in the two epiphyses of one cylindrical bone. It differs according to the energy of growth of the two intermediary cartilages, which I have demonstrated to be the case normally, and in the pathological processes of rachitis, syphilis, etc.

"After having thus proved what a profound influence phosphorus exercises both on the normal development of bones, and then on the fully developed bones of animals, (The Doctor also observed a perfectly analogous process in the case of a child,) it was not out of the way to call attention to the question, as to whether it might not be made of service by and by, in the processes of pathological osteogenesis. In the most prominent position stood the disturbances in the general development of the osse-

ous system in osteomalacia and rachitis, which in all probability are constitutional, and in the next place the anomalous osteoplastic processes confined to certain regions of the body, and of which are caries, fractures, subperiosteal resections and periosteal resections, and periosteal transplantations. From want of material for experiments I can say nothing about osteomalacia. Although Berlin is hardly a favorable place for observations on osteomalacia, yet it possesses ample opportunities for the study of rachitis and concomitant affections.

This disease is hardly any where so rife as among the offspring of the Berlin proletariat that populates our children's hospitals. If here observation were as easy as the material is great, we should very promptly settle the question. no end of difficulties, at least for anatomical proof, and so great that I for one. after having examined a certain number of rachitic bones on the development of which phosphorus co-operated, (certainly not long) must consider myself quite unable to give an opinion on the subject. I have made no observations whatever on the the influence of phosphorus over carius processes. On the other hand I can give an all the more certain, positive opinion on the modification produced by this remedy on the development of bone fractures, subperiosteal affections and transplantations of periosteum, because they are all easily experimented upon. For all these cases I can summarize the result of numerous experiments to the effect that traumatically irritated periosteum produces under the influence of phosphorus a more plentiful dense and solid substance; especially in fractures does the callus attain a perfect eburnean structure. Even here considering the difficulty of quite exact comparisons, I should not like to make a final decision with regard to the question as to whether the osseous neoplasia is accelerated in point of time; however I was generally impressed with the conviction, that, especially in resections, the development of new tissue was considerably faster than under ordinary conditions." C. CROPPER.

Medicine was not invented after reasoning, but after medicine was discovered, then the reasons were sought after. — Celsus.

He who can cure by simples, need not seek for compounds.— Villanow.

SYMPTOMS OF POISONING BY DATURA STRA-MONIUM.

Amount taken, over 100 seeds, weighing about 16 grains; time, 12 minutes.

The symptoms are given in the order of their occurrence, as reported in the history of the case:

- 1. Great irritability of temper within one-half hour.
- 2. Conducts herself ilke an intoxicated person.
- 3. The *concomitants* observed were general itching of the whole surface of the body, but more especially of the face.
 - 4. Flushed face.
 - 5. Wildness of manner; maniacal expression.
 - 6. Suffused eyes.
 - 7. Ineffectual efforts to vomit.
- 8. Incoherent and rapid utterance, which very soon became wholly unintelligible.
- 9. Screaming, catching at imaginary objects, or rather, striking at them.

(It was evident that the spectra were of a frightful nature, since, at the moment of darting out the hand, in the direction where the eyes were fixed, she always suddenly, and with great vehemence, withdrew herself, expressed the utmost *terror* in her look, and then hid her face, at the same time screaming and sobbing violently.

- 10. Rapidly became furiously delirious.
- 11. Struck at, pinched or attempted to bite every person who came near, or any object that was offered to her.
- 12. Lost the power of utterance and of voice also, (could only utter a hoarse, croaking sound attended with a sonorous croupy, barking cough.)
- 13. Inability to swallow, in consequence of the violent spasm of the muscles of deglutition, when making the effort.
 - 14. Complete insensibility to surrounding objects.
 - 15, Pupils dilated (from the first until death.)
 - 16. Voluntary power of the extremities destroyed.
- 17. Limbs violently agitated by spasmodic twitchings and jactitation (not regular convulsions) alternately with short paroxysms of tetanic spasm (opisthotonos.).

- 18. Hot and perspiring skin on the surface of the trunk.
- 19. Pulse almost imperceptible (from the first) but natural in regard to velocity.
 - 20, Inferior extremities cold.
- 21. Coma (in 3 hours, lasting about 2 hours) with incapability of swallowing from atony or paralysis of those parts which had formerly been affected with spasm. During the coma the pulse was over 200, sharp, small and thready respiration about 100.
 - 21. Slightly stertorous breathing.
 - 23. Bowels tympanitic.
- 24. Paralysis of the bladder and consequent incontinence of urine from repletion of the viscus.
 - 25. Gradual exhaustion, and death in 24 hours.

NEGATIVE OBSERVATION: The muscles of the face were never affected by spasm, nor the expression of the countenance affected in the slightest degree luring the whole course of the poison.

Each inspiration, even the most hurried, completely filled the lungs and, after death, they appeared natural.

This case was reported in the London Medical Gazette 1834-5 by Dr. E. W. Duffin (whose little daughter aged two years and ten months was the sufferer,) and is quoted by Dr. Benidge in British Journal of Homeopathy, January, 1873.

From the symptoms observed in this case as well as in many others scattered throughout medical literature it is very evident that the *primary* and *principal* action of Datura stramonium is on the cerebro-spinal nervous system, hence it is homoeopathic to the symptoms enumerated, when they are the result of a previous affection of that system.

There are two medical fulcra—reason and experience. Experience precedes, reason follows: hence, reasoning not founded on experience, avails nothing.—Hoffman.

Barbarians have more conduced to the augmentation of medicine, than the schools of all ages.—Brunn.

- Surgical Pathology.

ULCERATIVE ABSORPTION OF BONE RESULTING IN SPONTANEOUS FRACTURE—CASE NO. 2.

C. P. a merchant aged 54—In early life had been remarkably healthy and strong. Had syphilis, and gonorrhœa several times was married late in life and was the father of four healthy children. He was what is called an habitual drinker, and would become intoxicated occasionally.

In the Autumn of 1866, he was attacked with what was diagnosed as rheumatism, and was treated homeopathically by skillful, and competent physicians, several of the most prominent in the city having been called in consultation.

This condition lingered with greater or less severity, until the mild weather of spring became established, when convalescence seemed quite complete, when contrary to the advice of his physicians he attempted to resume his business. The alleged rheumatic condition returned but this time seemed to locate upon the membranes of the brain, developing a delirium of the most intense character, lasting three or four weeks; after recovering from this he was able to attend to business about six months, most of this time he complained of pains about his body and extremities; thought to be of a rheumatic character.

Sometime during the part of the winter of 1867 and 1868, the pains became more severe, burning worse on the inner side of the right thighs and hips, supposed to be along the course of the great sciatic nerve; no redness or swelling was apparent, and therefore it was believed to be a neuralgia of that nerve. There was also a drawing, burning pain along the course of the left ureter, red urine was large in quantity, depositing much thick yellow and reddish sediment, attended with burning on discharging it, and occasionally accompanied with a quantity of quite fresh blood. The bowels were moved once in two or three days. The skin assumed a reddish-brown hue, the mouth and tongue were dry and parched with thirst, which was but slightly relieved

by taking water; erythema of most painful burning character made its appearance upon the left arm extending from the shoulder to the elbow.

He described it as if coals of fire were laid upon the bare surface; in four or five days the cuticle peeled off, and in about a week more the eruption had disappeared. The pain in the hips and thighs now seemed beyond endurance.

Discouraged at repeated failures to obtain relief from his attending physicians, he thought and consulted a number of the most noted surgeons and physicians in the city, Allopathic, as well as Homeopathic, with no satisfactory result. He finally made application to a liniment doctor who made promise of speedy relief. It came in twelve days, and we made the "Post Mortem" on the thirteenth.

The brain was not examined. The organs of the chest were found healthy except some old pleuritic adhesions. The stomach gave evidence of a high degree of congestion, probably the result of the liniment which had been administered with a liberal hand both internally and externally. The liver was found of very large size and filled with fatty granulation, several hard nodules or scirrhous looking masses were found along its anterior border. The left kidney was more than three times as large as the right, which was apparently healthy.

This kidney was a mass of granular steatomatous deposit. The pelvis and calyces were completely filled with it. The Malpighian cones had disappeared in the mass, small tubular structures led from toward each extremity of the kidney and central portion of the ureter; some small cysts containing pus were found throughout the kidney, while the surface presented a rough granular appearance. The entire gland had undergone disorganization and fatty degeneration. The cortical portion was not more than one eighth of an inch in thickness, and contained numerous yellow stria and small cysts of pus. The veins were filled with a dark fluid, blood giving the parts a dark and congested look, which soon disappeared when the gland was laid open and the blood allowed to escape.

Upon examination of the right thigh a very unexpected spectacle presented itself, a cavity about four inches long occupied the place of the upper third of the femur. The apex of the great trochanter, a portion of the lesser trochanter, a thin shell of the compact and several small pieces of necrosed cancellous tissue of this portion was all that was found of the once solid bone. These were battered and partly immersed in about two ounces of pus. We have here a large section of solid bone removed entirely, except a few fragments. No opening upon the surface was found nor any indication that such might be expected.

This had occurred without the knowledge of the attending physicians or any member of the family and was only revealed upon a post mortum examination; no one had any recollection that he had ever been injured in any way at that point. How long this condition had been in developing and what length of time elapsed before a complete destruction of bone occurred it is impossible now to determine, but it seems quite probable that the condition believed to be rheumatic, which existed nearly two years before his death, was in reality due to general constitutional disturbance - result of purulent absorption from disease of the thigh, long since es-And that the alleged rheumatism, miningitis and erythema from which he suffered at various times, were but the different forms or manifestations of pyæmic poison. It may be safely assumed that destruction of hard tissues so extensive as here met with, would not probably have taken place in so short a period as the three or four months of his last sickness.

The pathological questions here arising are of very great importance in a practical point of view. Whether the diseased condition of the liver and kidney were the result of purulent absorption from the disease of thigh? Or were in any manner dependent upon that condition or not? Or whether or not the disease of the kidney did not precede that of the thigh, for it is well known that some forms of disease of this organ do tend to deprive the bones of their animal matters, and thus render them much more liable to fracture and necrosis, and if they were so dependent or connected which preceded the other? Or may not both have been the result of a general constitutional dyscrasia? The practical questions presenting themselves are also of a very important character. In the first place we do not find that a correct diagnosis was established, and if it had been, would it have availed anything in the treatment of the case, and what general course would have been most appropriate, especially in relation to the disease of the thigh. A partial answer to this last question we hope to supply in the third case reported to the MEDICAL ADVANCE. WM. OWENS.

THE MALIGNANT LYMPHO-SARCOMA.—Langhans, of Marburg, has made some valuable investigations, tending to define more closely what have been known variously as the lymph-adenomata, the condition known as anæmia lymphatica, leucæmia, or leucocythemia.

He gives the name of lympho-sarcoma to two forms of morbid appearances formerly grouped under the general name of leucæmia, but which both differ from lucæmia proper, in showing no undue proportion of white corpuscles in the blood. In other respects, excepting only that a fatal issue may be expected earlier, the two forms of lympho-sarcoma are not very different from lucæmia. In all three forms there are metastatic changes, and the liver and spleen are affected. In leucæmia, an increase in the number of white corpuscles of the blood has been shown to be so great that they may form one-sixth, one-half, or even a greater portion of all the blood-corpuscles. A similar increase in the blood-corpuscles in lympho-sarcoma has been suspected but never shown. L. divides these latter affections into two classes, the hard and soft, and gives the following differential points:—

1st.—In the hard form, usually, the lymphatic glands lying most superficially are the first seat of disease.

2d.—The hard is distinguished from the soft by its tough fibrous consistence, and this is regarded as a prominent characteristic.

3d.—Microscopically, in the hard form there is hyperplasia of the spleen follicles and lymphatic structures generally, with excessive development of the connective tissue reticulum of the glands. When the spleen is affected most of the cells are very similar to the normal lymph-corpuscles. But there is also an admixture of giant cells and dark protoplasmic matter, containing numerous nuclei. The hard form has but slight tendency to inflammation and abscess, and is seldom the seat of cheesy degeneration and softening. It is usually not painful to the touch and not the seat of periodic pain. Its firm consistence, the absence of periadenitis, and the symptoms already described separated it from scrofulous swelling of the glands.

In tubercular changes with which this form of sarcoma has been seen to be associated in children, the same microscopic elements are observed, but the disposition is different. In the sarcomata the connective tissue prevails, principally at the periphery, while the cells are most numerous at the centre. The converse is the case in tubercular induration, or if the cells are not most numerous at the periphery, they are in the intermediate zone.

Usually the disease commencing in the superficial groups of glands, those of the neck being most frequently elected, passes over, after weeks or months, to the groin or axilla. Later, those glands lying in the course of the great vessels take on the change, but the most constant lesion is of the provertebral lymphatic chain. Later still, when the spleen and the greater portion of the entire lymphatic system has become involved, disturbances in nutrition are shown. There are usually no subjective symptoms associated with the first appearance of the swelling. The prominent symptoms of general infection are a preternatural paleness of the skin, rapidly-increasing emaciation, muscular debility, rapid pulse with normal temperature, palpitation of the heart with systolic murmur at the apex, profuse bleeding at the nose, and dyspnæa. At the last there is usually ædema of the lower extremities and effusion into the serous cavities.

These unfavorable symptoms may increase in intensity, and the fatal issue may be a few months after the first appearance of the tumors, or the patient's life may be prolonged several years.

In no case has a favorable termination been observed. Preparations of iodine and of iron have had a transitory effect in arresting or diminishing the bulk of the tumors, but relapses have invariably occurred. Repeated extirpation seems to have had no influence in retarding the course of the disease. This form of lympho-sarcoma must accordingly be classed among the most dangerous of new growths.

The name of anæmia lymphatica given by Wilks is rejected by Langhans, for the reasons given, that there is no abnormal increase in the number of the white blood corpuscles.

The changes really consist in a paucity of blood, which is mostly non-coagulable, and resembles weak claret in fluidity and color.

The heart is usually found to be fatty. This condition, together with the changed character of the blood and the pressure of enlarged glands in the œnis, may account for the œdema. In a similar way, pressure upon the bronchi and biliary ducts may explain the dyspnæa in part, and the icterus.

Thus far the number of recorded cases is so small that statistics are valueless. It seems to affect the young by preference, and has been seen in children under ten years of age. Males have it more frequently than females.

Persons otherwise healthy are more frequently attacked than others of delicate constitution.—Algemeine Med. Zeitung. No. 77, Sept., 1872.

Pepartment of Physics.

ORIGIN OF CHOLERA.

Max v. Pettenkofer's theory on the origin of Cholera having been analyzed lately in Esterlin's work on the History of Epidemic Diseases, we thought it would be of general interest to bring before our readers a resume of his investigations in regard to the origin of Cholera in India. In one of the following numbers there will appear what his opponents have to say.

1. There are in India several districts where Cholera has been endemic for thousands of years, changing its frequency and intensity according to the seasons.

The cause of the disease and its endemicity can not be in the persons living there, but has to be looked for in an so far unknown or problematical relation of the specific germ of the disdisease to soil and climate.

2. From the earliest times cholera has spread from the endemic districts as an epidemic over the other parts of the surrounding country.

THE MEANS OF COMMUNICATION.

Some in Incia ascribe to the periodical currents of air, (winds) monsoons—they belong to the miasmatic school, like Bryden.

Others, to the intercourse of men with men, particularly through the excrements (the stool in particular) of cholera patients. They are called contagionists (McNamara and others.) Others again claim that the spreading may occur in either way.

None of these opinions is consistent with fact.

On the one hand the facts in India prove definitely and conclusively that human intercourse alone, without certain local and temporal conditions, existing at the same time, can not produce cholera. On the other hand, the facts of the spreading of cholera beyond the boundaries of India, particularly towards Europe prove, equally and conclusively, that cholera cannot be propagated and spread by the currents of air, the winds; but that there is something, an unknown x, which adheres in an unknown manner to the human intercourses, which if transplanted to districts, where the necessary conditions of its germinations and propagation exist, may produce epidemic cholera.

The experience in India speaks plainly against the opinion of the contagionists, who take the human body instead of the soil, as the generator of the cholera contagion in India, where cholera is endemic.

Just as plainly speaks experience outside of India against the opinion of the Miasmatics, who consider the human intercourse not indispensible, and assert that cholera is communicated through the currents of air, or that it originates spontaneous or indigenous.

The temporary local growth of the cholera sperm, which we may call x, does not emanate from the human organism, but from the locality, depending upon processes unknown in the soil. This proposition (axiom) is proved not only in endemic districts, but wherever cholera becomes epidemic.

The substrat furnished by the locality of the soil, upon which depends the local or temporal (endemic or epidemic) disposition or appearance of cholera, we may call for the present y. The cholera germ x can be transmitted by human intercourse. The local and temporal substrat y is undoubtedly imminent in its origin upon the soil, and is subject to the conditions prevailing upon the land and its climate.

That factor of the cholera poison which develops itself in the soil, and upon which depends essentially the temporal rythmus of the frequency of cholera in endemic as well as epidemic districts, requires, next to the other condition, a certain degree of hu-

midity of the soil. Intense aridity as seen in the desert; also complete saturation of the soil as we find it in the delta of the Ganges towards the end of the rainy reason, are not favorable to the development of cholera. Therefore the appearance of cholera coincides in the comparatively dry and hot regions of upper India, where there is little rain during the rainy season, while in the preeminently humid and hot regions of lower Bengal, with plenty of rain, cholera appears in spring, where there is no rain, and disappears with the rainy summer season. The same amount of rain affects differently different soils, damp or arid.

Next to z, the cholera germ which the human intercourse distributes, and next to y, the cholera substrat, which represents the local (telluric) disposition, the number of cases is depending upon the individual dispositions of the inhabitants, which is much less with the native Indians than with the foreigner.

Amongst the natives again, the dwellers upon the high lands show a greater individual disposition than the inhabitants of the low lands.

6. Ships on the high seas never generate y. In as far as cholera appears on ships it has its origin from the land. In the great majority of cases, persons taken with cholera on board ships have been infected with the disease while on land, and the disease is not transferable to such as have not been on land, or do come from districts not infected; or in isolated cases persons get sick even if they have not been on land, but only after the ships had been in communication with an infected districts.

But even it can not be presumed that the infection excludes the co-operation of the soil factor; but that the intercourse with the infected land brought a sufficient quantity of the contagion, resulting on the land from x plus y, but which, on the ships, under certain conditions, have to undergo transformation to become mature, before the infection appears.

. 7. The use of different waters, even the water impregnated with the stools of cholera patients, can never explain the local or temporal appearance of cholera in India.

G. SAAL.

He who prescribes a farrage of medicine, sins either by design or ignorance.

CONDITIONS OF DISEASE.

A sudden change in the atmosphere, from dryness and warmth to coldness and humidity, excites at one time a prevailing catarrh; at another, a general rheumatic or pleuritic affection; in a third instance an epidemic diarrhea; in a fourth a dysentery; in fifth a regular bilious or typhoid fever. These are common occurrences and have their respective causes. Why does not the same change in the weather always produce the same form of disease? The reply is plain, and appears satisfactory.

The members of the same community have, at different times, a general predisposition to different complaints, and the change in the weather, or any other existing cause, can produce in them no disease but that to which they are predisposed. In truth, the form and character of disease in general, is controlled and determined to an extent, much greater than is commonly imagined, by some secret condition of the atmosphere.

It is and must be such a condition that produces the predisposition to every endemic and epidemic complaint. And the predisposition shapes and settles the character of the disease which any existing cause may develope.

But all complaints not contagious, that overrun cities, towns and districts of country, being endemic or epidemic, are essentially connected with corresponding forms of the conditions referred to. It may be added, that there are very few kinds of general disease which are not occasionally, more or less epidemic.—James C. Caldwell, 1826.

I remember a time—It is now long gone by—when this skeptical feeling as to the possibilities of large scientific progress in the time to come was extremely prevalent—so prevalent that a learned professor of a neighboring college thought it worth his while to combat, in an energetic public address, the discouraging notion that Nature has no longer any important secrets to yield. Subsequent history has magnificently corroborated his argument. For that was a time when, as yet, no Faraday had drawn a living spark from the lifeless magnet; no Daniell, or Grove, or Bunsen, had given us an enduring source of electro-

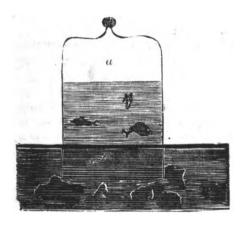
dynamic power; no Ohm had taught us how to measure such a power when obtained; no Bessel had detected the parallaxes of the fixed stars; no Adams or Leverrier had thrown his grapple into space, and felt the influence of an unseen planet trembling, to use the beautiful language of Herschel, along the delicate line of his analysis; no Draper or Daguerre, or Talbot, had revealed the wonders of actinism; no Mayer or Joule had laid a sure foundation for the grand doctrine of the conservation of force; no Carpenter had unravelled the intricacies of nervous physiology, or analized the relations of mind and brain; no Agassiz had ridden down the Alps on the backs of the glaciers and proved their sturdy flow; no Darwin had lifted the veil from the mysteries of organic development; no Schiaparelli or Newton had put the harness of universal gravitation upon the wayward movements of the shooting-stars; no Mallet had presented an intelligible theory of volcanic flames and of the earth's convulsive tremors; no Kirchoff had furnished a key to the intimate constitution of celestial bodies or a gauge of stellar drift; no Huggins, or Secci, or Young, had applied the key thus presented to enter the secret chambers of the sun, the comets, the fixed stars, and the nebulæ; no Stokes had made the darkness visible which lies beyond the violet; no Tyndal had done the same for the darkness beyond the red, or had measured the heat-absorbing powers of aeriform bodies, or shown how the tremors of the ether shake asunder the elements of vapors. In short, that period of presumed scientific omniscience seems now, as we look back to it, but a faint dawning of a day of glorious discovery, which we dare not, even yet, pronounce to be approaching its meridian.—Popular Science Monthly.

What great results have been achieved by the power of means apparently the most trivial! Immense objects, seemingly unattainable, have been grasped by the smallest conceivable handle! A little instrument, which is scarcely anything more than a small triangular piece of glass, solves questions which hundreds of thousands of dollars expended in telescopes, and years of observation, could not have settled! Penetrating into the illimitable depths of space, it reveals to us something of the physical and chemical constitution of stellar clusters and nebulæ, so remote, that the light which the spectroscope analyzes, must have left them thousands, perhaps millions, of years ago.—Le Conte.

A QUESTION.

A friend of ours has in his office an aquarium. It is an inverted bell-glass, filled with water by atmospheric pressure, as in the annexed cut. Is the air in the upper part (a) as dense as the outer surrounding atmosphere?

E. W. Fish.



At a meeting of a medical National Association, recently, the following peroration was given, and appeared in the Transactions: "Scholastic attainments must be our fortification strong and impregnable; gentlemanly culture the commanding general of the warfare; genuine kindness of heart the bombshell of truth. Before these, the ramparts of error, ignorance, and wedded bigotry must fall, and the victors may nobly exclaim, 'VENI, VIDI, VICI!':"

APOTHEGMS:-

He who mingles contraries, sins against the pharmacopæa.

The physician destitute of a knowledge of plants, can never properly judge of the power of a plant.

The vegetable kingdom is the most noble in medicines; stones are too hard; and animals afford the fewest medicines.

To use medicine, except in violent disorders, is useless.— Celsus.

Surgical Bepariment.

ON AMPUTATIONS.

It has been said that "the most discreditable operation in sur-

gery is an amputation."

And when we reflect upon the trivial causes that often have been the pretext for the surgeon to display his operative skill, (or rather ignorance) in mutilating the human form by an operation that forever incapacitates the person from following his occupation—alienates him from society—from amusements, and from the pursuit of ordinary avocations, makes his whole life one of sorrow, and oftentimes of uselessnes—we are of the opinion that the above quotation is as true to-day as it was when given to a medical class in Guy's hospital by an eminent surgeon thirty years ago.

There is no operation in the whole range of surgery compared to that of amputation, that should claim the previous exercise of an equal amount of skill and patience, or of the decision which demands so large an amount of conscientiousness. And if the surgeon would act upon the precept "do unto others as you would have them do unto you," many and many limbs would daily be

saved, and thousands bless the competency of our art.

It would be better for the patient if a greater number of surgeons, instead of considering an amputation a triumphant deed of surgery, knew it practically illustrated the poverty of his skill, and a want of intelligence on his part to comprehend the curative powers of the human system.

The most learned and experienced, are as mere students in understanding the curative power of nature,—her ability to contend against disease and mechanical injuries, and each successive year the surgeon will see cases recover that in his earlier life he would have amputated; and every such recovery will add to his sympathy with human suffering, and aid the true surgeon to learn that the highest accomplishment of his art—the noblest work of his pro-

fession—the most desirable reputation to gain, is one to cure and not to cut.

During the late war many limbs were removed unnecessarily, many lives lost in consequence of the surgeon's desire to gain experience and reputation, in operating.

And when they returned to civil practice the habit of amputating had become so fixed upon them, that in instances we have known where an amputation would not have been even thought of before the war, the operation was performed unhesitatingly.

The observation of experienced and conservative surgeons during the war, would fill volumes if told, of the frequent mutilations by young and even regular army surgeons, that could have been prevented by time and proper treatment.

Our respected friend Prof. Saal, who was a regimental surgeon during the whole war, has just looked over our shoulder as we finished the above sentence, and says "yes, how true," and from his recollections alone recited many cases where he had prevented an amputation after it had been directed by the surgeon in chief.

The recital of two cases, from the number he gave us, is sufficient to show how frequently similar cases occurred. Case 1. Private of the 28th Ohio Regiment was shot September 10th, through the elbow joint; brought into the hospital late in the evening, visited next day by the surgeon in charge, who directed an amputation. Dr. Saal disobeyed orders and treated the case with homeopathic remedies, and it soon recovered, and the man is now a resident of this city supporting his family by cutting stone. A driver of a sutler's wagon in 1862, fell from his seat, and the wheel of the wagon ran over his left thigh. brought into the hospital at Gallipolis, and the surgeons were anxious to amputate, but were prevented by older operators, and the man is now a porter in a store, with as good limbs as before the injury. Sometime will have to intervene before the numerous surgeons made by the war, will learn to have more confidence in the curative efforts of nature. And so long as advice like that in Hamilton's surgery is given, where he says, when speaking of military surgery, "in every case of doubt the surgeon should be advised to lean toward amputation as to the side of hope," limbs will be sacrificed by young surgeons.

Those who have had long experience in the curative effects of

our remedies in mechanical injuries, diseases of joints etc., will be slow to advise removal of a limb when others would insist on removal, and we here wish to impress upon our brethren the importance of a full consideration of the value of attenuated medicines in preventing extensive inflammation, sloughing, gangrene etc., that will so often follow in injuries where they are not used. We are all of us prone to overlook internal treatment in surgery. For instance, in a case of compound fracture, the man has broken his bones; medicine taken will do no good, says the surgeon, and he contents himself by making local applications, although he well knows that congestion and inflammation often will prevent absorption of his applications, and no treatment save that of internal can be of any benefit.

The next question to be determined is the cases that require amputation. S. R. B.

A FINE RECORD IN LITHOTOMY.

Few surgeons there are who can show such a record in operatons for stone, as Prof. Paul F. Eve M. D., of Nashville.

A couple of weeks since I had the pleasure of being present at his one hundred and third operation of this kind, and a most successful one it was.

The mode of operating was the bilateral, and the calculus removed weighed about forty grains.

Prof. Eve has published a synopsis of his first one hundred cases of lithotomy, from which we see his first operation was in October 1841. His youngest patient $2\frac{1}{2}$ years and his eldest 77—.

The total mortality was only 11 out of the 100 cases, a proportion which compares very favorably with that of any other operator.

Prof. Gross of Philadelphia has performed the operation one hundred and fourteen times—so we are informed—being more than performed by any other surgeon in America.

Prof. Eve comes second on the list, and enjoys a wide and well

merited reputation, the patients for his one hundred operations alluded to above, coming from nine different states.

Nashville Tenn.

W. C. DAKE.

Our friend Dr. Dake is mistaken in regard to his statement that Dr. Gross has performed the operation of Lithotomy more times than any other surgeon in America. Dr. B. W. Dudley, more than twenty years ago had operated more than 200 times by the lateral method. Dr. Valentine Mott previous to 1855, 162 times by the same method. Prof. Eve usually operates by bilateral method, and his record of cures shows that he is one of the most skillful operators in this country.

But Dr. Dudley lost only 6 out of 207 cases, or one in 35, Martineau lost 1 in 42. Dr. Hildebrand of Moscow, has according to the "Quarterly Journal of Foreign Medicine and Surgery" operated 1500 times with a loss of 30, or 1 in 50.

We do not give these cases for the purpose of detracting from the honored reputation of Prof. Eve, but simply to do him justice, in placing him properly on the record. In some future number we shall give our opinion of the causes of stone in the bladder, and the most successful way in removing it. Below we insert a cut of our instruments that make the operation of Lithotomy so simple, that any tyro in surgery can perform it. Although we have used it, we do not wish to be understood as recommending it too strongly.



Mode of using the instrument:—Staff 2, has a groove to the left side same as in an ordinary, Staff 3, represents a wire passing through handle and groove. On the staff end of the wire is a cup to receive the end of gorget 4. The cup is placed in the groove



under the cutting instrument 1. The staff is then introduced into the bladder, and instrument 1. is made to cut through the parts to the grove in the staff, and then removed. The end of the gorget is now secured into the cup of the guide or wire, and the parts divided by pushing the gorget along through the grove. The guide will indicate the direction of the cutting which is to the left of the mesial line as represented by the groove.

S. R. B.

REMOVAL OF ENCLOSED NERVE.

Miss. C. aged 52 years was injured as follows:

"In June 1861, my right foot was injured by the fall of a heavy body on the point of articulation of the fifth metatarsal with the cuboid bone. The resulting imflammation continued until Nov. following, during which period I did not bear my weight upon the foot. It appeared well in the forenoon, but in the afternoon of each day it became cold and white as the foot of a corpse, followed in a few hours by every indication of high inflammatory action and considerable constitutional disturbance, such as nervous fever etc. Previous to this, I had spent a few months in a malarious region.

"An application of a fomentation of Tobacco, Stramonium and Lobelia removed these symptoms. In the course of a few months I was able to walk but always with care, as a spot beneath and opposite the place of injury continued exceedingly sensitive to pressure.

"In 1864 I was finally disabled by too great use of the foot which remained for nine years in a state of chronic inflammation, with daily paroxysms of a mild form of ague.

"In 1866 there appeared on the under side of the foot, opposite the point of injury, a white spot which increased to one fourth of an inch in diameter, slightly indented and with the appearance of a cicatrix. In this year also the foot was permanently benefited by the external use of Iodine and narcotics, though I did not bear my weight upon it except when taking Quinine with other antiperiodies."

Prof. S. R. Beckwith M. D., made a careful examination of this case and decided upon an operation. Accordingly on the 11th of March, he made a semi-elliptical incision, three inches in

length, near the outer margin of the plantar aspect of the foot. Dissecting up and turning outward the integument, he made another incision through to the periosteum, revealing a thickening both of the tendon and periosteum. He then laid open the periosteum, removed the induration, appearing like a cicatrix.

The wound having been properly dressed, Dr. Beckwith placed the patient under my charge for Medical treatment. I administered Acon. and Arn. but owing to a peculiar idiosyncrasy, was compelled to discontinue the Aconite as it produced the characteristic nervous and head symptoms of that drug. I then prescribed Nux vom. on these symptoms vanished as by magic, while under the continued action of that remedy an habitual constipation of her bowels was cured. Under this treatment, the operation was followed by but slight imflammatory action, the foot healing rapidly, although showing now and then slight constitutional symptoms which yield to Ars. on

She is now able to use the foot in walking, which she has not done since 1866, a period of seven years.

Subsequently the patient was discharged being able to walk with but little difficulty, and this also will soon disappear. Her declaration seemed not too strong when she said that for lack of reasonable surgical skill she had lost the better part of her whole life.

O. W. LOUNSBURY.

HIGH POTENCIES AFTER SURGICAL OPERATIONS.

DEAR DOCTOR.—Noticing in the last No. of the ADVANCE, some remarks on the effects of "High potencies after Surgical operations," I offer you a few notes from private practice to demonstrate their efficacy in Ophthalmic Surgery. On the 1st of Jan. 1873, was consulted by Louis H. a German age 19, an employer in a Foundry. Some four weeks previous he had while at work received a blow upon the right eye, from a foreign body, which in 24 hours totally destroyed the eye, producing partial Staphyloma; since that time had suffered no pain, until within 3 or 4 days, when the left eye began to be irritable. On close examination of the left eye. I discovered it was slightly

inflamed; also that the accommodative powers were at fault, with the "near point" far removed; had also considerable pain in the supra-orbital region, and was much disturbed by bright lights. Fearing sympathetic ophthalmia or irido-choroiditis, I at once determined to remove the injured eye, which with the assistance of Dr Pearce and Koehler of Louisville, and Dr. Lefavor of New Albany, was done Jan, 3d. But little hæmorrhage followed the operation, and for the first twenty-four hours the patient rested comfortable, but on my next visit symptoms of inflammation of cellular tissue of the Orbit, had set in, for which I prescribed Aconite¹⁰ 10 drops in half a glass of water, a teaspoonful to be given every half hour, at the same time advised warm water compresses. A short time afterward was sent for in great haste, found my patient much worse, with high fever, flushed cheeks, and violent pains in the head, inflammation was evidently extending, and meningitis seemed imminent. I at once discontinued the Acon., and prescribed Bell. 80 in same manner, followed by the most happy effect. In twelve hours all inflammatory symptoms had subsided, and the case progressed so rapidly that in six weeks he was able to bear an artificial eye, all traces of sympathetic inflammation having disappeared from left eye.

I have also found a very happy effect from Spigelia.³⁰ in two cases of Strabismus, where after the operation there was a slight tendency to a return of the "squint"

I can also mention the good effects of Rhus tox^{2c} after cataract extraction, Mrs R. German, aged 53 years, cataract in both eyes. Assisted by Drs. Pearce and Lefavor, removed the cataract in left eye, with "Græfes modified linear operation." In twenty four hours symptoms of inflainmation set in for which Acon. was given; but as no abatement of symptoms followed, I gave Rhus tox^{20c} with a rapid effect, and the patient was enabled to leave her bed on the fifth day. Yours,

Louisville, Ky. WM. L. Breyfogle, M. D.

ADDITIONAL EVIDENCE OF THE VALUE OF HIGH POTENCIES.

We have met with such success with high potencies in a case of neuralgia that we think it worth relating.

R. H. aged 35, in May 1872, was shot, the ball entering the right hip about two inches to the right of the middle of the sacrum. The surgeon in attendance was unable to find the ball but

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supposed it took a downward course. For seven weeks he was confined to his bed, suffering all the time severe pain along the sciatic nerve. Also violent pain in foot and cramps of the calf of the leg. He took large doses of morphine during his confinement. As soon as he was able to move he returned to his home in this city, and placed himself under the care of an excellent sur geon, who treated him for several months without benefit, using daily a large amount of morphine by hypodermic injections.

He then by the advice of several surgeons submitted to an operation for the purpose of finding the ball which was supposed to lie against the sciatic nerve. An incision was made four inches long commencing at the point the ball entered and continued downward along the supposed direction the ball went; no ball was found, and the patients symptoms were aggravated.

In January 1873, the surgeon believed he felt the ball, and a new incision was made in same direction. At about four inches a pure clot of blood was found, at the point the ball was supposed to have been felt. From this time until March 10th, the patient took no other treatment then hypodermic injections of morphine, using two and half to three gr's, at a time, twice a day. At the last mentioned date, by the request of the President of the Pulte College Judge Storer, the patient was sent to us. Having similar symptoms to those related, with addition of contractions of his ham-strings, he was unable to put his foot to the floor, and walked with crutches. We gave him Nux³ directing the morphine to be lessened one half; no benefit; second prescription Colocynth³ dose every three hours for one week; no benefit. We then gave him Nux30. In a few days his pain was much less, and he was able to reduce the morphine more than one half. Next and last, pr's was Nux *00, and at present April 28th, he is able to walk without a cane nearly free from pain, is an applicant for an appointment on the police force, and has not used morphine for more than a week. S. R. B.

It is the part of a wise physician to decline prescribing in a lost case.— Celsus.

Those who can not be cured rationally, are often cured by temerity.— Celsus.

FRANKLIN'S SURGERY.

Prof. E. C. Franklin has at last finished his Surgery. He has devoted several years to the work, and we are surprised that he has completed the task of writing and compiling a book of seventeen hundred pages in the time he could spare from the duties of a large practice. Most of us can scarcely give the time to write an occasional article for a journal.

We have now for the first time a creditable homœopathic surgery, and the profession should be proud of it, and feel that if every member should purchase a copy, the Doctor would be poorly paid for the labor he has done, and the benefit he has been to the profession, in giving us a work of such merit.

The works on surgery published in this country by American authors, as well as the translations from the German and French, with English additions, are so numerous and so complete, that it would seem impossible to add anything new to descriptive surgery, yet we find in this new work many original suggestions, and we are not acquainted with any work on general surgery that gives so full and complete a description of fractiures and dislocations. In many instances the treatment is nearly new, and it seems to us to be an improvement on the usual method.

While we are pleased to have an homœopathic surgery that contains so many new and useful things in it, we do not so much value the work on this account as we do from the fact that the author has contented himself in the main by repeating the best known and generally accepted descriptions of diseases, and manner of performing surgical operations. He has wisely compiled where no changes could be profitably made, hence giving to the profession a truthful book.

In the homeopathic treatment he has shown that much time and labor has been devoted in preparing his work, and from our experience we pronounce it well done. We wish the engraver had done his part as well as the author; the cuts are the poorest part of the work. But we will not find fault, we know something of the expense in procuring fine engravings. We shall place this book first on the list in works recommended in our department of the Pulte College; and we can assure the author and the profession that it affords us no small pleasure to head our college list of text books with an homeopathic surgery. For the first time in more than twenty years we have a work that compares favorably with any similiar work published.

S. R. BECKWITH.

Physiology, Microscopy, Efc.

MATTER OF LIFE: PHYSICAL BASIS: PROTO-PLASM.

Out of the sixty-five substances now known to exist in nature, but twenty enter into the composition of organized beings. Of these twenty elements eleven are non-metallic, viz: oxygen, hydrogen, carbon, nitrogen, phosphorus, sulphur, chlorine, fluorine, iodine, bromine, and silicon. The metallic elements are nine in number, viz: potassium, sodium, calcium, magnesium, aluminum, iron, maganese, copper, and lead.

"We know now," says Dr. Bence Jones, "that in all living things no separate or peculiar matter is present."

The matter of life is derived from the inorganic world, and living matter is but modified non-living matter, the terms living and dead signifying the condition in which it exists at any given time, living matter becoming under certain conditions dead, and dead matter becoming living.

Of the twenty elements above named as entering into the formation of living beings, the first four non-metallic substances are the most important, viz: oxygen, hydrogen, carbon, and nitrogen. Organized matter always contains as fundamental ingredients these four elements; these are called the essential constituents of protoplasm, the remaining sixteen elements may be called incidental, being present in one instance, and absent in another. Of the four elements named as essential constituents of protoplasm three are gaseous. The chemical energy displayed by oxygen, both in the range and intensity of its affinities, is unequaled by that of any other known element, while nitrogen displays the greatest chemical inactivity.

The atomic cohesion of carbon is greater than that of any other known element, resisting fusion and volatilization at the highest temperature that can be produced, while the atomic cohesion of hydrogen, oxygen, and nitrogen, is lower than that of any other elements.

Those characteristics of the principle elements entering into

the formation of protoplasm would seem to provide for ready change "in the arrangement of parts which we call development, and those transformations of motion which we call function." We shall refer to this more at length in another place.

Perhaps the best example of protoplasm is pure albumen. "Mulder supposes that all the albuminates contain the same radical, C₁₈H₈₇N₄O₆ which he calls *protein*, combined with

small quantities of sulphur and phosphorus."*

The egg of a bird contains hardly any other nitrogenous compound except albumen, the yolk containing in addition a yellow fat, with traces of iron and other organic matters. Yet we see in the process of incubation, during which no foreign matter except atmospheric air can be introduced, or can take any part in the development of the animal, that feathers, claws, blood corpuscles, cellular tissue, and vessels are produced."

Two forms of aggregation of solid matter have been found to exist, viz: the colloidal or jelly-like, and the crystalloidal. The colloidal is the dynamic form; the crystalloidal the statical condition. Of the later, the crystalloidal, we have instances in abundance: the rigidity of the structure of crystals shuts out external impressions; the atoms of which the crystal is com-

posed do not respond very readily to motor impulses.

Of the colloidal form of matter we not only have substances among those classed as inorganic, as silicia, (hydrated silicic acid) but the nitrogenous compounds of the organic tissues are all found in a colloidal state. Those interstitial changes necessary to the maintenance of life, waste and repair, redistribution of matter, and change in the mode of motion, find in collodial matter only that condition of extreme mobility, so essential to organic processes.



In the accompanying diagram‡ the group of bodies numbered



^{*} Text Book on Physiology, Burnett. †Bennet. †From Protoplasm, by Dr. Beale.

I represent the different forms assumed by a minute particle of germinal matter from living pus corpuscle in the space of five seconds, +2800. Fig. 2 represents a living mucous corpuscle, in which cells and granules appear, but which nevertheless manifests wonderful activity. Fig. 3 represents a group of very minute amæbæ magnified +5000. Viewed under the microscope, these bodies show the most wonderful activity, throwing out prolongations at one point, receding at another, and moving across the field of vision as if endowed with volition. Without definite form, or separate organs, the amœbæ are nevertheless living organisms. That is they possess "such an internal cellular, or cellulo-vascular structure, as will enable them to take up matter from without, change its nature, and convert it into their own structure." And the matter of which they are composed is protoplasm, a generic term applied to colloidal matter, containing at least the four elements, C, H, O, N, and capable of being assimilated into an organism, and increasing thereby its bulk, and manifesting its functions or modes of motion.

In this, and the papers which will follow on The Matter, The Forces, and The Phenomena of Life, no original investigations have been attempted. The writer has drawn freely from the works of Spencer, Huxley, Beale, and other modern writers, designing only to furnish a resume of some of the later investigations in these important departments of science.

J. D. B.

MAN MAGNIFIED.

The flea magnified, until he looks as large as an elephant, and as ugly as a lobster, is an old familiar object with all who have ever looked through a microscopic lens. Neither are such marvels as those displayed on the wall of the darkened exhibition room in the circle of light thrown by the solar microscope, unfamiliar. Here the large eyed juvenile, and the nervous spectator, have witnessed most terrible combats—where the animals, like all sorts of tigers, snakes, beetles, dragons, and flying fish, struggle, dart, twist and jerk in all directions. These are amongst the chosen subjects for popular illustration. But far more startling objects may be seen through the lenses nearer home. Man may be magnified as well as a flea. When a child, I remember reading with absorbed, and wondering interest, the travels of Gulliver;—of the giant stature, and rough skin of the Brobdignagian people. The fancies of Swift have been paralelled by the discoveries of the microscopists The rough skin of the Brobdignagian giant, has been shown in re

ality under the object glass, with other things much more strange than any the Dean ventured to imagine. Nowadays, from the crown of the head to the sole of the foot, every tissue of the human frame has, in turn, become the subject of investigation. The bones on which the body is built—the muscles that move it—the brain that exerts the will—and the nerves that convey that will to the limbs—the blood that vitalizes and repairs—and the lungs that purify and vivify that blood with air—have all been put to the test, and made to reveal their peculiarities.

In order to see all this we need not set up one of McAlister's five hundred dollar microscopes, nor trouble anatomists for specimens. The whole task has been gone through by various medical inquirers, and histologists, and we have the result told in scientific terms. Without troubling these authors for terms however, let us see what facts they afford us. No microscope ever was made nor ever will be made, probably, large enough to grasp the whole specimen of the genus *Homo* at once.

You can not catch a Kentucky Giant, or even a Tom Thumb, and put him under the power of eight hundred, or a thousand diameters. But though we can not magnify the entire animal at once, we can yet examine him in detail, portion by portion. One hair, or one drop of blood, displays the characteristic features of its construction just as completely as though the whole scalp, or the entire contents of the heart, could be seen at once. Knowing one, we know all.

A small piece of skin, for instance, displays a series of ridges and furrows, having a somewhat scaly surface; between the ridges, minute openings are seen. They are the mouths of the perspiratory ducts. Under the surface, and forming the most important and interesting portion of the skin, is the layer in which resides the sense of touch; but if this be valuable, it is even less beautiful, as we see under the microscope, than the scaly cuticle provided for its protection, for it looks more like a dense crop of double teeth than anything else—each tooth having four sharp tubercles. Between each tooth, we see the continuation of the perspiratory duct winding its way deeper into the frame; just as tiles are placed for drainage in moist lands.

These fleshy teeth are known as the papillary portion of the skin, and where they are the most numerous, there is the sense of

touch most keen. On the soft sensitive hand and fingers of a young lady, looking the perfection of whiteness and delicacy, they are ranged thick and threefold; and so, too, are they on the skillful fingers of the workman, trained to the more delicate manipulations of art. In the rough laborer, they become buried under a hard crust of coarse cuticle. The naked eye can easily detect the ridges, into which the papillæ, are arranged; each ridge being in fact two rows of papillæ—two rows of double teeth. But the microscope is wanted, if we wish to behold them in their exact form—beautifully adapted—to the work they have to do, but rougher than the bark of the burr-oak, with scales like the rind of a pine-apple, and by no means so picturesque as the scale armour of the magnified flea.

When magnified, a fine growth of hair, might be compared to a plantation of osiers, when the leaves are off, with some differences of course. The hair may be called the offspring of the skin; and in health and disease, youth and age, there is a close sympathy between the two. Human hair is not perfectly round as it seems to be when seen with the naked eye; nor is it of the same thickness through its whole length. It swells out at its origin in the skin into a bulbous form, like a crocus-root, or the body of a young spring onion before the leaves are opened. From this base the hair springs forth and gradually becomes more bulky as it lengthens.

This goes on to a certain point, at which the greater growth is attained; and then the hair, "grows fine by degrees and beautifully less;" until, if allowed its full growth as on the head of a young damsel, its point is many times smaller and more delicate than the portion near the center of its length.

Some hair is much rounder, more cylindrical, than other; some being oval, and some flattened.

The flat hair it is that curls most; therefore, in this one point at least, Adonis and the negro are alike. Both in thickness and in length, hairs vary in a large degree; those on the female scalps being naturally the longest of all, and those of the beard of men being next in length, and longer than those of the male head. The hair of the female scalps is not only longer than that of the male but in proportion to its length, is larger in diameter. The thickest of all human hair, however, is that of the beard of men

and the investigations of this subject tend to justify the assertion of the barbers, that frequently cutting the hair, has a tenddency to make it thicker. Every hair has a stem and a root just as a tree has; that root being bedded in the skin just as the tree is in the earth. But the comparison does not end here. The tree has bark, medulla, and intervening substance, the hair has the same. The cortex (or bark) of the hair displays a series of scales, placed one overlapping another, just as we see shingles overlap on the roof of a house. Immediately within this scaly bark we have a fibrous portion, forming two-thirds of the bulk of the hair. These fibers are seen to separate when the hair splits by being left too long uncut. The center of the hair has a minute canal, full of an oily, marrow-like substance, containing the greater part of the coloring matter, black in black hair, brown in brown hair, and is almost absent when the hair has become grev. The marrow of the hair, and its two outer coverings, are well seen in a section of a hair from a well-shaved chin. cuts it across, from day, to day; it can not grow longer, so it grows thicker and stronger; until each slice, taken away by the daily shaving, looks under the microscope, like a section of a bone, resembling indeed the bone cut across when a ham is sliced up for broiling, while the stump remaining on the chin has just the same look as the bone on the section of grilled ham ready for the breakfast table. The primly shaved mouth is thickly dotted round by myriads of hideous hair-stumps, with inner layer and marrow all exposed. If men who shave could see the stumps of their beards through a microscope, the fashion of shaving would entirely cease, and the razor maker would starve out, or foreswear his trade. Another interesting element when put under the microscope, is fat.

Fat appears to be a series of little globules, each enclosed in a vesicle. A collection of fat, therefore, is like a vast number of receptacles each full of oily matter. The concistences of fat, varies considerably in different animals, and varies also in hot and cold weather. The fat of an ox or a sheep is harder than that of a pig; that of the human subject being intermediate between the two extremes. It is well known that the quantity of fat secreted varies in different animals, and in different constitutions; the tending to its increase, also varies at different

periods of life. In man, the unwieldy accumulation of fat, indicates he has passed the meridian of life; and is ripe now for the dignity of an Alderman. A moderate proportion of these bladders or vesicles of oil, however, have many uses. They add both to health and to beauty—they give softness to the skin—symmetry to the human outline—they are a garment to keep out the cold—often act as guards against injurious pressure on bones, nerves, and muscles; and in certain cases, form a reserve of nourishment on which the system can draw, for sustaining life when food can not be taken, or is not to he had. So, if the fat of the frame when magnified, does look like a portion of the contents of a provision shop, the similitude is great in fact as in appearance.

Marrow only differs from fat in this respect; the cells are rounder, and it is less encumbered with cellular tissues. Inside a bone the fat requires less tying together, than is needed in other situations on the body.

From this partial substitute for food,—to the masticators of it, is no very violent digression.

The teeth, under the microscope, are seen to be made up of three different portions, or elements:—the enamel on the surface above the gum,—the ivory, making up the bulk of the tooth beneath the enamel, and the coating of the fang. The ivory of the tooth is full of small tubes, running from the cavity in the center toward the outer surface.

These tubes get finer and finer as they approach the surface, and many of them branch out like little tubular trees. The microscope gives strength to the supposition that decay of the teeth, with the horrible aches which accompany it, arises from a parisitical growth promoted by a vitiated condition of the secretions of the mouth. The tartar that accumulates on neglected teeth consists of lime mixed with mucus, and the refuse from the lining substances of the mouth.

This substance contains, in the case of negligent and dirty people, animal and vegetable growths. Imagine a human being with a small zoological, and botonical collection between and round about the teeth.

We have spoken of the skin, the hair, the fat, and the teeth; all contributing to the appearance of the surface of the body. One other of the important principles of which the frame is made

up, and by which it is nourished, must be mentioned. Upon its presence, vitality of all the organisms of the body depend; and to its healthful brightness, and visibility, is due the great charm, and blooming beauty, "of the human face divine." We speak of the blood. It seems simply a crimson fluid till scrutinized under the magic glass of the microscopist.

Instead of appearing one evenly bright red stream, we see that it is made up of globules, some of which are white, others red. The white ones, indeed, are largest and roundest; but the red ones, are by far the most numerous.

On they flow while life lasts—with a velocity that carries the whole current through the course of the circulation every three minutes of time. On they flow through the arteries,—or rather, like myriads of red, and white billiard balls, running and rolling through a series of tubes.

This revelation of the ultimate forms of living structure, may not altogether make up a flattering picture. Man seen under this aspect, may be less handsome than man seen by ordinary unassisted eyesight. Skin rough as the bark of an old oak tree;hair, a marsh of winter reeds;-teeth incrusted by earthy matter; and blood shown sometimes glutinously rich, and sometimes indolently poor, make no flattering picture for our self-contemplation. But the great roughness of the skin, covered by its myriads of perspiratory ducts, teaches the need for careful cleanliness; the hair, tortured by frizzing irons, and mutilated by razors, suggests a thought as to the purposes for which portions of the frame were thus carfully covered by the Author of all things; teeth becoming sources of agonizing pain, and falling to decay, teach the wise necessity of giving them proper care both direct, by washing, and indirect by keeping the juices of the mouth pure by proper food and wholesome temperance. Blood too white or too red, warns us against gluttony on the one hand, or indolence and innutrition on the other.

There is not one particle of the vast natural kingdom but has its lesson, if we will take the trouble to read it. And surely there is an obvious code of morals, plainly indicated in this one glimpse of Man Magnified.

C. C. Bronson.

Ophthalmic and Aural Surgery.

AN IMPROVED AURAL SYRINGE.

It is not so small a feat as it seems to be to thoroughly cleanse an impacted meatus. To completely remove all the impaction without giving pain to the patient, or drenching the neck and shoulders with water, requires a skill that is made, not born. One great desideratum is a continous stream in the place of



the squirting, and unequal discharges made by an ordinary syringe. We have succeeded in meeting this want by the following device:

A pint tin cup is furnished with an outlet near its bottom, to which is attached a small tube, upon which is placed the rubber

hose. The hose and bulbs are taken from Codman and Shurtliff's Atomisers, and operate on the same principle. Some alteration is needed in the length of the segments of hose. A small notch is cut in the brim of the cup directly over the outlet, and into this the hose is placed, in order to hold it in its position.

In the manner set forth in the drawing it will be easy to continue—without interruption or spilling of water—the syringing of the ear, all one may desire; and the stream will be continuous and pleasant, and even attractive to children.

Over the outlet a thin wire gauge should be placed, in order that the valves of the syringe may not become clogged with foreign bodies.

T. P. WILSON.

Chemistry and Pharmacy.

ON SOLUBILITIES.

We continue this month the subject introduced in the March Number.

In the previous article we undertook to develope the fact that the cause and atomic relations of a solution were not well understood, and that "Natural Philosophy" of the day teaches an error in assuming that a solution was an excess of adhesive attraction. The arguments were not dwe't upon fully, because we believed it would, as it already has in several instances, awaken in the mind of the reader thoughts leading him to the conclusion given; and again, it is not essential to prove the position taken to develope our few ideas to follow. This number we shall apparently desert the theme, to examine the general physical condition of the earth, in which solution performs a far greater office than generally supposed.

All matter exists in either one of three conditions—a solid, a fluid, or a gas. In all these conditions the ultimate composition of matter is universally admitted to be identical. It is made up

either of atoms or molecules. The atom representing the indivisible ultimate of all simple matter—the molecule representing a single collection of such different atoms as are requisite to make the compound matter; each molecule being the smallest indivisible particle of such matter. "Indivisible," although compound, because to divide the molecule would destroy the identity of the substance, and reduce it to other forms. In the treatment of solutions we speak of atoms, frequently, where "molecules" would read as well; for a solution, strictly speaking, never breaks up the molecule and destroys the matter, either of the menstruum or substance dissolved. Hence, we never refer in these papers, to solutions of metals in acids, where the residuum on evaporating, would be a salt.

Then all matter is composed of atoms, or molecules with the attributes of atoms, and the three conditions under which they exist in matter are the solid, liquid and gas.

Judging by these forms of matter the most ordinary comprehension of their condition tells us that their densities not only differ with each other, but that each may exist in static form with different densities. By densities we refer to the closeness of atoms, and not of the compactness of atoms themselves, for there can be no variation in density in the same elemental atom; nor is it probable that there can be any variation in the densities of different atoms, for they are indivisible, inseparable, a unit of existence, and have no integral parts to move one upon another.

All atoms may exist in mass, forming matter, with different degrees of density. To illustrate, vapor of water, liquid water, ice. Carbonic acid gas, liquid, and waxy solid. These changes of density, as stated before, may be "static" as the different conditions of transparent steam, visible vapor, mobile water, swollen and incompressible ice. The production, of these changes is by two important agencies, cold and pressure. Chemism may produce them, but cold and pressure are the two most important.

Thus we see that by the withdrawal of heat we accomplish a similar change to that produced by pressure. What can that change be if not the approximation of atoms? This is readily assented to by most students. But if it is an approximation of atoms only, it involves a very great approximation. Think of Hydrogen gas, the lightest, rarest, thinnest of matter reduced to

metallic grains! Now the answer of this question leads us to ask another. If this immense approximation takes place, what exists between the atoms of the gas? This is indeed a weighty question, for there are interstices incalculably larger than the atoms themselves, which must be vacant, unless filled by some process not yet accounted for. Again this leads us to another consideration. If we have reduced a volatile gas to a liquid, and to a solid, have we yet reached that point in compression where atoms touch, and condensation can proceed no farther? Who can tell? No one! For the solution of that problem requires the solution of the relations of heat and force to matter, and the absolute measure of each—which is as infinite as the atom.

Is it not safe, then, to assume that no atoms touch each other? If contraction never occurs in nature, or by force at our command, sufficient to bring the atoms in contact, then these atoms, in the hardest substances, are capable of independent motion, as for instance—revolution upon their axes, subject to polarity; and on the other hand, expansion of matter may extend to an unlimited extent, without loss of mass characteristics, and without necessitating such a vacuum as we generally understand by the use of that word; at least it is a vacuum which is consistent with the equilibrium established between the density of the rarified substance and the attraction of gravitation.

Governing the shape, character, composition, and general attributes of matter, are certain laws, called "natural forces." We say natural forces, because we mean forces which act in a state of rest—without psychical interference. Among these forces are the attractions of Cohesion, Adhesion, and Gravitation. The first is that which determines the density of matter, a force exerted only between like atoms, and only at insensible distances. The second exists between unlike particles, and with variations of intensity. The third exists between all substances, however related—at all distances, however near or remote, and exactly in same proportion for the same volume of atoms, or atomic volume.

The latter force, the attraction of gravitation, modifies the dentity of substances very wonderfully, and in a degree not fully comprehended in physics.

In the mobile elements it produces forces which constitute many mechanical powers. It is supposed or "granted" that

the maxim "nature abhors a vacuum" is merely due to what would be the force of gravity, or attraction of gravitation + the weight of the atmosphere.* At all events, the atmosphere is everywhere pressing upon the surface of the earth with a definite gravity, and at the same time rendering all other substances immersed in the air, appreciably lighter--the same as a stone is lighter in the water than in the air. And at this point it may not be out of place to mention the fact that physicists believe in the existence of an ether, far more mobile and rare than atmosphere, or Hvdrogen gas—with atoms probably infinitely smaller—with atoms infinitely farther apart—still, of course, subject to the great law of gravity, and rendering the atmospheric pressure upon a given vacuum considerably less than it would be were there a vacuum above the atmosphere. And how far such an infinitude of rarefactions may go on, and consequently what is the actual measure of gravitation on our own planet it is impossible to tell, except relatively.

In our first article we attempted to suggest to our readers that solution was not dependent upon the relative powers of the forces of cohesion and adhesion.

In this we have attempted to show why atoms do not touch each other in any matter in nature—can not be made to do so—and that their *interstices* vary from an inconceivably small distance to a distance incalculably greater than the atomic diameters.

Also that gravity or some other potent agency renders a vacuum "obnoxious," and that the precise measure of this pressure against a vacuum is greater than any means we possess can ascertain.

Next issue we propose to consider the repulsive forces of nature, and the vacuum. This may be a roundabout way of getting at solutions, but it will surely lead us there sometime.

Fish.

^{*} This explanation may not fully account for all the phenomena, but its consideration is not patent in this connection.

⁺ This is in conflict with Ampere's law and will be considered hereafter.

BARON JUSTUS VON LIEBIG, the world famous chemist, died at Munich on the 18th ult, in his seventieth year. He was born at Darmstadt, May 12, 1773, and was educated in his native city. Bonn, and Erlangen. He manifested a taste for the physical sciences at a very early age, and after graduation perfected himself in chemistry by two years' study in Paris. A paper on Fulminic acid, read by him at the Institute, gave him great reputation, and won for him the favor of Humboldt. He was soon appointed professor at Giessen, and here he lectured and experimented for many years. The Grand Duke of Hesse Darmstadt made him a baron in 1845, and in 1852 he became President of the Chemical Libratory at Munich. In all branches of his favorite science Liebig was a proficient, uniting with thorough technical knowledge a capacity for indicating the practical results of his discoveries shared by but few of his most eminent fellow laborers. His works are familiar to American students through the medium of English translations.

BOOK NOTICES.

Post Mortem Examinations, and Morbid Anatomy, By A. R. Thomas, M. D., Boericke & Tafel, New York.

Perhaps none of our readers ever saw a bungling post mortem examination. Perhaps none of them ever saw a squad of puzzled doctors standing over a morbid specimen they could not identify. For our part we have several times had that pleasure. It would have been painful if it had not been ludicrous. We are glad to know that Prof. Thomas has consented to place in the hands of the profession so valuable an aid in post mortems. Not only do we learn how to perform the operation skilfully, but the morbid anatomy of the parts is plainly set forth. The work should be placed in the hands of our students, and made a part of the curriculum of our schools. It is well systematized, compact, and beautifully printed. For sale by Geo. E. Stevens & Co.

Transactions of the Homeopathic Medical Society of the State of New York, 1871.

We are indebted to Dr. J. C. Harrington for an advance copy. The volume, thanks to the long experience and rare abilities of the Secretary, Dr. H. M. Paine, is a marked improvement on its valuable predecessors. The contents are varied, interesting, and of a high order; the addresses by Drs. McMurray, Holden, Pettit, Pritchard, Hunt and Bowers will bear careful reading. McMurray's plea for better medical education is noticeably fine. We have marked for extract a portion of his stirring and truthful words on college medical training.

Mysteries of the Voice and Ear, By Prof. O. N. Rood, Chatfield & Co., New Haven.

It is not a small achievement for one to present so difficult a subject as this in an intelligible manner to the public. Prof. Rood has admirably succeeded in the task. It is easy to comprehend the varied facts of hearing and speaking while following the lecture through this brief discussion. Technicalities are so completely avoided, and everything set forth in such clear and unmistakable language, that we do not hesitate to commend the perusal of the lecture to all our readers. For sale by Geo. E. Stevens & Co.

Miscellaneous.

A lady "who had for some time been suffering from a complication of disorder which had baffled the skill of her physicians" is reported to have been cured by the following: "Every other pane of glass in one of the patients' room was removed, and blue glass substituted, and the patient required to expose her back and spine to the action of the combined blue and white light for thirty minutes each day at the same hour."

TWENTY-SIXTH SESSION OF THE AMERICAN INSTITUTE OF HOMŒOPATHY.

The thirtieth anniversary and twenty-sixth session of the American Institute of Homœopathy will be held in the city of Cleveland, Ohio, commencing Tuesday, June 3d, 1873, and continuing four days. The usual preliminary meeting will be held at the residence of Dr. N. Schneider.

There is every reason for believing that this meeting will be largely attended, and that the reports of the various bureaus will be more than usually full, interesting, and valuable. In accordance with the plan of the Institute—that each bureau shall select a special subject for presentation and discussion—the following bureaus have notified the General Secretary of their selection of the annexed subjects:

Bureau of Materia Medica, etc.—A plan for the more thorough and proper proving of medicines, and notation of symptoms. Provings of Eucalyptus.

Bureau of Clinical Medicine—Phthisis pulmonalis.

Bureau of Obstetrics-Leucorrhæa.

Bureau of Surgery—Diseases of bones, and their medical and surgical treatment.

Bureau of Anatomy, Physiology, and Hygiene—What is the best diet for the sick in general, and what is the best in particular diseases.

Bureau of Psychological Medicine-Vital Dynamics.

Bureau of Ophthalmology and Otology.

Papers upon these subjects are solicited by the various bureaus. Papers upon other subjects are not intended to be excluded, but are likewise solicited. All papers upon medical or surgical subjects should be forwarded to the chairman of the appropriate bureau, or to the General Secretary.

Officers of homoeopathic medical societies and institutions are earnestly requested to send a written report of the condition, etc., of said societies and institutions, in advance of the meeting, to Dr. W. M. Williamson, No. 29, North Eleventh Street, Philadelphia, Chairman of the Bureau of Organization, etc.

It is hoped that physicians will make strenuous efforts to attend this meeting of the Institute, and do what they can to make it subservient to the advancement of medical science.

The Institute will be hospitably entertained by the physicians and other citizens of Cleveland during the session.

A circular will shortly be issued by the General Secretary, in which further information will be given, including that relating to railroads.

Members of the profession wishing blank applications for membership will be promptly supplied by applying to

ROBERT J. McClatchy, General Secretary.

No. 918 North Tenth Street, Philadelphia.

OUR LETTER BOX.

The contents of this receptacle for this month is varied. The views of the writers are not altogether flattering it must be confessed. We shall not probably get our editorial head turned, or our self-esteem unduly enlarged by such criticism. This is from "away down East."

"I have just read through the initial number of the Advance. It is decidedly the worst homoopathic journal I have seen, excepting always the ———. When I want hash, I have a maid who can make it well. When I want scientific or allopathic works I know where to get them. I can not subscribe to such articles as J. D. B's., on 'Pure Homoopathy.' Medical science may be older, but it is not broader nor higher than Homoopathy. If homoopathy announces but one law, I think J. D. B. had better spend a little more time in trying to comprehend it. Dr. Buck's clinical case is worth more than all the rest of the journal put together."

This is from one who belongs to a much neglected class of medical men, and not having an organ especially devoted to their views, we pledge it no more than fair they should have a hearing in the ADVANCE. Our platform is broad and strong enough for all to stand upon, and no one shall be denied a hearing simply because we or our readers do not happen to believe as he does.

The following letter we give in full-nearly:

"As you were so polite as to send me a copy of your new Maga-

zine, common courtesy demands, as I return it, my reasons for not subscribing. When I want Philosophy, Science, Allopathy, or Electicism I can get them in the original. But when I want Homœopathy pure I can't find it. Now here is your Journal the MEDICAL ADVANCE! "advancing where, not to higher arcana of Homœopathy—oh! no. That is the procrustean bed "for staying the progress of medical science." according to the author of the sneering article on "Pure Homocopathy. When a man "advances" out of Christianity into infidelity he says the same thing of Christianity. It cramps and confines his soaring spirit, and he rises out of it into finer thought. While the fact is, he is profoundly ignorant of Christianity for its heights and depths, lengths and breadths, are inexhaustible to finite minds. with Homœopathy. Where is the man that ever exhausted it? Or where the man who has comprehended it? Ask Father Hering if he has an entire knowledge of the powers, capabilities and possibilities of Lachesis. And he will tell you no, a thousand times no!

I have a prover on the 800 day of the proving, and on the 400th since she took the last dose of the drug, and only a week since, she had a symptom, a new one, that I verified in less than 3 days. Physicians who practice Homocopathy allopathically, will no doubt advance like J. C. Peters.

When a man practices Homeopathy from a conviction of its truth—and lends a listening ear, with the humility and receptivity of a child, to its teachings, is not afraid to dare the unknown regions of high potencies, does not say that "Burdock ought to be proved," but proves it on himself, it will not be long before he will "advance" to the opinion, from experience, that there are no conditions of organic or functional disturbance, but what came under and must succomb to that law, will of Providence alone excepted. Of course I do not refer to purely surgical conditions—though even there Homeopathy has its vic-A Homœopathic physician once told me he did not believe that an ingrowing toe could be cured by medicine; that he had tried all the remedies he could learn of, and to no effect, and therefore supposed he had exhausted Homœopathy, and so resorted to Allopathic practice of pulling it out by the roots. I have cured several cases, seldom requiring longer than 5 weeks, with Magnetismus Australis im. I merely mention this as one instance in this direction.

If they have any bearing at all on medicine—it will be time enough to publish when it has been confirmed In my opinion all the devils in the hells of atheists are operating through willing mediums, to break down Christianity and cast ridicule upon it. And so all allopathic devils are endeavoring by means of the lurid light of false philosophy, to undermine Homœopathy.

Secondly—a magazine for clinical cases and experience, admitting none that do not individualize the case, and give the symptoms. Pray what is learned, by the report, Dr. Chaffee cured hoarseness by Natr. Mur. Would any physician prescribe Nat. M. for hoarseness on that statement, without ascertaining if it covered all the other symptoms? This is a foolish question after all, for you know hundreds that would, and that is their kind of Homœopathy. They don't want any other Materia Medica but Guernsey's Key-notes, and if they fail with one drug try another.

Thirdly—a magazine for scientific, metaphysical and philosophic articles, in which Darwin, Huxley, Tyndal, Spencer, Swedenborg, can have all the space they need. Now the proportion of subscriptions would be: No. 1, would get 5, No. 2, 20, No. 3, 1.

When a man's brain is full of his cases of malignant scarlet fever, Diphtheria, or Cerebro spinal meningites, he would turn the pages of No. 2. rapidly, to ascertain if he can get any help from others experience. But what help could he get from the article in — on the last named disease, especially when from Dr. - article we find there is no cut-and-dried specimen, to which all cases must go to be measured by. Now my dear doctor, I wish I could write half as well, but all doctor's brains were not made receptive of Metaphysics, but all are capable of understanding me when I say that Variolinum M in water a spoonful every hour till the efflorescence abates, and every 3 or 4 hours after-will cure any case of small-pox and do it up clean, without a scar or sequelæ—because I have tried it and succeeded and then if they persist in using the 6th Decimal, they will learn by their own experience that it will not cure it. These kind of facts are what the average physician wants, and you know very well that no magazine pays expenses, from subscriptions. So you must fill yours with what is wanted by physicians. and your neatly printed, handsome Journal will have success. Since the Allopathists have commenced noticing the symptoms produced by drugs, their magazines are becoming very valuable.

My dear doctor I hope you will not be offended at my writing you, and if an excuse is needed, please charge it to the effects of Oxygen Gas 1m. Finke, which I took on the 17th inst., and can't get rid of.

Yours very Sincerely ———.

REPORT CINCINNATI FREE DISPENSARY.

FOR MONTH OF APRIL 1873.

Medical Department.—Intermittent Fever 7, Anasarca 3, Diarrhea 8, Constipatiou 5, Rheumatism 7, Scrofula 2, Neuralgia 1, Gastric 15, Abscess 3, Skin 4, Cough 15, Uterine 16, Miscellaneous 38. Whole Number 119, No. of Prescriptions 260, Males 28, Females 91.

J. H. CHATTEN M. D.

Resident Physician,

Ophthalmic aud Aural Department.—Iritis 2, Amblyopia 1. Glaucoma 1, Trichiasis 2, Keratitis 1, Leucoma 1, Chronic Aural Catarrh 2, Irido-Choroiditis 1, Asthenopia 1, Otitis Media Acute 1, Conjunctivitis 3, Catarract 1, Ectropion 1, Trachorma 2. Detached Retina 1, Hypermetropia 7. Whole No. 22, No. prescriptions 70.

T. P. WILSON, Surgeon in charge.

In compliance with the resolution adopted at the last meeting of the American Institute of Homœopathy, the Bureau of Anatomy, Physiology, and Hygiene has selected the following subject for discussion at the next annual meeting:

What is the best diet for the sick in general, and what the best in particular diseases?

By opening the subject of diet on this broad basis, it is hoped that the discussion may elicit much practical matter relating to this important question.

Papers pertaining to this subject, or to others connected with the Bureau, are earnestly solicited.

Communications should be directed to the chairman, or to other members of the Bureau.

Dr. A. R. Thomas, Philadelphia Pa., Chairman; Dr. J. D. Buck, Cincinnati, O. Dr. S. S. Guy, Brooklyn N. Y. Dr. R. N. Foster, Chicago Ill.

PERSONALS.

Dr. J. H. Thomson, late a student of Pulte Medical College—a young man of unusual promise—died March 31.

Dr. Wm. C. Dake has formed a copartnership in medical practice with his father, Dr. J. P. Dake, at Nashville Tenn.

We beg to call attention to the notice of the Secretary of the American Institute. A delegation will leave Cincinnati for Clevcland on the evening of June 2nd. Physicians en route will do well to join the company. Half fares are probably out of the question. We believe this is as it should be. There is no reason why we should tax the courtesy of the railroad companies. Let us pay full fares, and then demand comfortable, safe and speedy traveling. Doctors should both give and require an honorable quid pro quo.

The gentleman who returns the ADVANCE to "Dr. Bradford Editor" etc., did not look closely and that is why he did not subscribe. The other gentleman who say we "are advancing backwards" should know that all motion is merely relative. He is probably going forward so fast that we seem to be receeding.

Not a bit of it; our course is onward and upward. Another one says that "so good looking a journal should have better matter in it." Well, send us something better and it will be put in. Our readers shall have the best we can get.

The number of flattering notices we have received bewilders and abashes us. We hope to deserve all the good things said in praise of our bantling.

This makes three numbers of the ADVANCE we have placed before the public. We have indicated pretty clearly what we intend to make the journal represent. If we have not done all we hoped, its because we have not yet found our pace. We shall hold our columns open to views that our diverse, adverse and perverse. All we ask of our contributors is honesty, sincerity and a fair degree of intelligence. All we ask of our readers is three dollars in advance

The homoeopathic physicians of Michigan met at Ann, Arbor; May 7th, to select suitable candidates for the proposed professorship in the University. Dr. N. F. Cook, of Chicago; A. R. Morgan of New York; and H. P. Gatchell, of Kenosha; were nominated for the Chair of Theory and Practice of Medicine.

Drs. W. E. Payne, of Bath, Me., A. B. Fellows of Chicago and C. T. Bacme ister Fenton, Ill., for the Chair of Materia Medica.

OBITUARY.

In Calamus, Iowa., February 23d, Willian C. Russell. M. D., died of typhoid pneumonia after an illness of ten days.

The sad news of this loss from the ranks of Homoopathy came to us recently. Dr. Russell was a gentleman of much worth and highly respected in his circle of acquaintances and friends as an able physician, a man of deep sympathies and thoroughly conscientions in his profession. We knew him in the lecture room where his ever genial face won for him many friends and his studiousness merited the esteem and confidence meted to him by class mates and teachers.

He leaves a wife and one son to mourn his loss. Frain.

THE

Cincinnati





VOLUME I.]

CINCINNATI, O.-JUNE, 1873.

[NO. 4.

Subscriptions to the Advance should be sent to Dr. T. C. Bradford, P. O. Drawer 1284, Cincinnati, Ohio.—\$3.00 a year, IN ADVANCE.

All communications for publication should be addressed to the General Editor, "T. P. WILSON, M. D., Corner 7th and Mound Sts., Cincinnati, Ohio;" or direct to the Editors of Departments.

All business communications, relating to the publication or to advertising, should be addressed to Dr. E. W. Fish, 148 West Fourth St., Cincinnati, Ohio.

"Our Dumb Animals" is a very readable journal published in Boston, in the interest of the inferior races. Its thirty-nine articles include: The stopping of beating, over-loading, over-driving, under-feeding, and other cruelties to animals, such as is exhibited in cock fights, dog fights and bull fights; the introducing of better roads, better carrying and slaughtering of cattle, and the introducing of "Our paper in Sabbath Schools, and among children." This last article is eminently practical, having an eye to business. Any paper might profitably insert it into its platform. But this paper comes wrathfully down upon the subjecting of dogs to experiments in digestion, feeding them upon a given amount of bread, or sugar, or coffee, until sad to say the dogs grow thin and dic. Then it asks this pertinent question: Are such cruelties necessary to the progress of scientific knowledge? If we say, in answer to this very proper question, Yes, will the

paper in question drop the controversy, or will it send into our sanctum a committee of tender-hearted ladies to assure us in dulcet tones, that they know almost as much about the wants of science, as they do about making baby clothes? And will we be convinced that the interests of humanity can be better subserved in some other way; or that dogs can better fulfill their mission by dining sumptuously every day on the crumbs that fall from their master's table; or still more sumptuously every night on the valuable flocks of sheep belonging to some neighbor?

In our opinion, the best use that can be made of dogs, would be to give all of them to the doctors, and leave the doctors to dispose of them in their own way, only expressly stipulating they should not allow them to breed.

FRANK BUCKLAND, in the Popular Science Monthly, (quoting from Leisure Hours), discourses very interestingly on "The Hippopotamus and her Baby," which are being reared in the Zoological Gardens of London, much to the delight of thousands. If half the care was taken in rearing human offspring that these scientific people take in rearing these curious but not specially useful animals, we might have some hope of improving the human It is all very well to take good care of the babies (we mean human babies) after they are born. How to use them when well. and how to treat them when sick, is it not written in many of the books? But how to care for them before they are born, nay more, how to anticipate their possible conception, who gives any special attention to these things? Might we safely tell the world how the human species could in a rational and scientific way be physically improved? How cattle, horses, dogs, and chickens. can be improved in their breed is a very proper subject for public discussion; but it were better as matters stand, to let children come into the world as best they can, though all of them be subjects of chance, results of failure and mistake, products of ignorance, and always untimely and unwelcome. They might be the fruits of a scientific calculation, and all the better for being so. As it is, they are unfortunately as a rule "got twix't sleep and wake." and they show painfully the nature of their origin.

THE NEED OF THE HOUR is a daily medical Journal. When the love of power and self become subordinate to the love of life and health, we certainly will have published not one but many daily medical newspapers. But we need it now. There is so much that is new, interesting and important, going to waste for lack of being reported, that we could almost cry shame on the indifference of the profession and people. Some of this strays into our newspapers, a moity gets into our staid journals, but the major part is totally lost. We see almost daily sketches of lectures, that should be brought out, and made to have a wider hearing.

Only think how a drowsy college professor would tremble, if an inquisitive reporter sat under his nose, to let the world know what the professor was saying. We fancy that in many instances the said professor would effect a sudden retreat by the back door. The lynx eyed reporter, should he happen to get hold of the dusty MS of the lecture, would turn up his nose, because he would have no liking for such stale fish. We heard some lectures last winter which, had they been reported, would have made somebody blush. We need some fresh air let into our colleges and hospitals. This should be done daily. In view of this want a monthly journal is a failure, a bi-monthly an absurdity, and a quarterly—well, as near a last year's bird's nest as anything we can think of.

Two of our doctors have just left for Europe—Dr. L. Drais and Dr. Elmira Y. Howard. They will be absent a year or more. Dr. Howard will spend her time chiefly in the hospital of Vienna. Our readers may expect to hear of her through the pages of the ADVANCE.

DR. MARY J. STAFFORD is the witching editor of the Obstetrical Department of the New England Medical Gazette. This is a fulfillment of the old rule of putting "the right man in the right place." In this case it is a woman, and all the more fitting. We give a brotherly hand to Doctor Mary J., and commend her to all our friends.

"The Son he intends to fit for the medical profession, and thus keep up the family name in the medical world." Poor boy, we feel a tinge of pity for him, but most of all we pity the profession to which he is so hopelessly doomed. These doctors, cut and dried for the business from their youth up, are interesting specimens. And then to think if we had the whole profession made up of such characters; why it is bad enough now when men come into it of their own accord. Better give the young man an education, and let him choose his own calling. If he selects the medical profession he should have a better claim upon it than the foreordination of his father.

DR. H. FRANK LOGEE, of Coneautville, Pa., committed suicide last April, by shooting himself in the head. Dr. Logee was the first student that studied in our office. He was a young man of great brilliancy and promise. His overflowing geniality and sympathy won him friends everywhere. He had an unbounded enthusiasm for his profession, and but for evil habits, which he did not master, would have stood among its chosen leaders. His loss touches the heart with peculiar sorrow.

Dr. Eames says, "My hobby is not 'New Remedy,' the 'single remedy,' 'high potencies,' nor 'low potencies,' but therapeutic precision." That is just as truthful as it is well expressed. The sentiment is worthy of applause. A better thing has not been said. Let it be passed around.

THE MEDICAL AND SURGICAL REPORTER, Philadelphia, gives editorially quasi adherence to the theory that modern science demonstrates the truthfulness of the doctrine of certain theologians, that immortality is not an attribute of man, but that it is a gift of God, and will after death be bestowed only on the righteous. Now let modern science go a step further, and demonstrate who are the righteous, and we shall then have it all in a nut shell.

THE ATTEMPT to establish a Homomopathic Surgical Hospital on Gramercy Park, New York, is meeting with an undeserved opposition from neighboring property holders. The trustees of the hospital show commendable pluck in making a good fight over the matter, and we wish them success.

WHAT'S IN A NAME?

There has probably existed at no time during the history of the arts and sciences such wide spread discrepancy in and dissatisfaction with our nomenclature as at present. Names—the representation of things, and especially as the representation of ideas—naturally change their significance as ideas change. Man naturally clings to the idea of permanency, and rest, and inertia, when in fact, he clings only to a delusion. Even "the everlasting hills" are not motionless, not everlasting. Every atom in the universe is in ceaseless motion. We know nothing of matter undisturbed by force, and nothing of force except as manifest in matter, and when visible, palpable motion is for the time suspended, molecular motion is still present.

If there is no permanency in matter, no stability in the forms which it assumes, what shall we say of ideas? It is doubtful whether any two persons entertain the same ideas relative to the most simple matter; and the ideas of the individual change whether he wills it or not. Even in some slight degree his vision enlarges, although he may neither recognize nor desire it.

Only a few years ago matter was to the majority of mankind, if indeed it is not now, "dead," "inert," "motionless," "brutal." Electricity was a "fluid," heat was "caloric," and the vital principle "an indwelling deity, doing everything in its own way, but refusing to be made the subject of scientific investigation." But with a very respectable few at least all this is changed: all matter is related, and all force correlated, while matter and force are inseparable.

The shadowy deities are banished both from celestial and terrestrial spaces. Force is known only as a "mode of motion," and any special force as a "special mode of motion." Matter has been elevated from the "gross" and the "brutal," and force has been brought down from the realm of imagination, and subjected to qualitative and quantitative analysis.

Now be it observed, that during all this time, neither matter nor force has changed its nature, but the change has been wrought in man's interpretation of nature, not theoretically, but by scientific demonstration. Consequently, when, according to the new

interpretation, a proposition is advanced, those who reject, or who do not comprehend the new law, but who still adhere to the old, cry out, sacrilege! materialism! as though matter, the only known theatre for the manifestation of force, whether physical or dynamic, could be in any sense a term of reproach. Verily there is more in matter and more in force than we have dreamed of in our philosophy! But whether there be much or little in the names by which we designate them, depends on the individual mind which conceives them. "All changes! Naught is lost; that which has been is not what it was. Yet that which has been, is."

New combinations, and new manifestations, no longer imply new matter and new force. We are apt to confound the idea of new relations with new creations. The relation is the only new creation. The relation is everywhere present, and the subject of all our investigations, while the absolute is beyond our ken. Relation, combination, manifestation, we know, while absolute entity is a conception of the imagination, conceived only from analogy with the finite—hence, a misnomer. J. D. B.

GEOLOGY OF THE STARS.*

Man's dominion over nature, was a pleasing conception of the ancients, long before man knew what nature really was. To-day, by virtue of the progress achieved by the sciences, we begin to have some faint conception of the chemical construction and physical condition of the planetary and stellar worlds.

Our more recent views, greatly widens the spatial extent of nature, and narrows, to an equal extent, our view of man's boasted dominion.

"The greatest study of mankind is man," was said in the infancy of science; but we doubt if it can be soberly said to-day. It becomes a pointless statement in the light of modern discoveries.

The origin of the universe, is a probelem fast passing to a successful solution. From the nebulous star dust, through all the

*The Geology of the Stars, by Prof. A. Winchell, Boston, Estes & Lauriat.

long and countless ages, to the dead and frigid world, whose heat is forever gone, whose life is forever extinct, and whose water and atmosphere are completely lost by absorption into its structure, man, though himself an ephemeron—a momentary fact in the immeasurable cycles of time—is able to note with remarkable exactness, all the varied processes which mark the history of the universe.

At present, our cosmogony rests upon two fundamental laws. First is the law of evolution; or as Winchell phrases it, the law of correlated successiveness. Secondly, the law of correlated simultaneousness. These are illustrated in the gradual development through which organic structures, human civilization, and world making, gradually proceed in their career; and in the simultaneous occurrence of this process in different persons and in persons situated in different places. By virtue of these laws, the past, present and future of all conceivable time, in the evolution of all known existences, lies open to our view. oak lives many hundred years, vet we can trace all its history from the cell-germ to the ripened tree, and we can find in the forest, specimens of every phase of its growth. Man's history we know, too well, not merely "from the cradle to the grave," but from embryo until he is resolved back to dust, and "lost on the viewless air."

Well now we come to make a stronger statement than the foregoing, and while it comprehends a large fact, it is no less true. The history of our own earth, from its beginning to its end, is broadly written in unmistakeable characters upon the face of Heaven. The spectroscope has enabled us to determine the chemical nature of the sun and the planets, and many of the stars. By its aid, together with the telescope, we can now ascertain with considerable exactness their physical condition.— And when we say that in every known respect they correspond to all we know of the nature of the earth, we need no surer demonstration of the unity of Nature.

What our earth has been, is seen in the unresolvable nebulæ, in the incandescent sun, in the protozoic Jupiter. What the earth now is we are fast finding to be but a transitory epoch, slowly but surely passing into the declining stage of Mars, to finally reach the lifeless condition of the moon.

"The finality lies in the impenetrable darkness of the future. What it may be, we can only conjecture; but one impending stage of all cosmical matter is positively written upon the face of the moon. Not only must our own planet reach finally that refrigerated and inhospitable condition, but the sun itself must ultimately fade to a darkened planet, and become extinguished in the heavens.

"These thoughts summon into our immediate presence the measureless past and the measureless future of material history. They seem almost to open vistas through the eternities, and to endow the human intellect with an existence and a vision exempt from the limitations of the finite, and lift it up towards a sublime apprehension of that Supreme Intelligence whose dwelling place is Eternity."

T. P. WILSON.

ADDRESS.

Delivered at the First Commencement of Pulte Medical College.

BY ISAAC ERRETT. Editor of the Christian Standard.

In the variety of public addresses I have been called on to deliver during the past thirty years, this is the first attempt to speak to gentlemen of the medical profession. And yet it seems to me, if on any subject I could speak feelingly, this of medicine ought to have had precedence of all others. For away back in early childhood the first dawnings of memory are tinged with the peculiar hues of paregoric and Godfrey's Cordial, and the first pages of my life are eloquent in praise of those delightful infantile beverages! My only regret now is that I was born too early to enjoy the superior benefits of Mrs. Winslow's Soothing Syrup, and I must ever esteem it a calamity that I was thus, through a cruel decree of fate, robbed of that complete bliss of babyhood which modern science confers on the infants of to-day. But perhaps I had ample compensation for this privation, in the full enjoyment afforded me in the most ample doses

of that most fragrant and delicious preparation, castor oil-a fragrance and deliciousness which have never been effaced from memory. I can scarcely think, without tears, of that blissful period of my existence. I remember that tears flowed freely then—the very sight of the castor oil bottle being sufficient to start a gush of briny emotions! Then, with progress into a sterner boyhood—not to speak of Swain's Panacea,—came delicious doses of lobelia, causing such delightful agitations and graceful evolutions and enthusiastic contortions—such an ecstacy of sensational excitement, that one could not tell whether he was in the body or out of it. Ah! gentlemen, you complacently boast of the progress of modern medical science;—but are you sure you have ever advanced one step since that magnificent era when the application of steam-power to disease was first made, and steam-doctors, unencumbered with the pedantries of science and the heresies of book-learning, went forth with lobelia and capsicum, composition and No. 6, and the steaming apparatus, to burn out all the hard colds, sweat out all the bad humors, and employ a writ of ejectment against all sluggish and stubborn bile? Never talk of the luxury of Turkish baths, unless you are ignorant of the soft, soothing, refreshing and enrapturing experiences of a full Thompsonian course. It would send you into a perfect delirium of pleasure, and cook you into a tenderness too pathetic to be dwelt upon, even in memory, without a flood of I remember well in my boyhood, when I found two of these professional gentlemen in search of medicines in the broad fields of nature. They did not know the difference between a butternut and a black ash tree. They were in search of a tree whose inner bark, scraped up, would furnish an emetic; scraped down a cathartic; and, I reckon, if scraped around, it would send a fellow spinning through the world in the grandest revolutionary delirium. But when I saw them, they were barking up the wrong tree!

You see you did well to send for me to deliver this address, as my acquaintance with many wonderful achievements in the healing art, and my own sweet and joyful experiences, with

almost everything, except soothing syrup, enabled me to speak feelingly and appreciatively, as

"Fond memory brings the light Of other days around me."

When I add to this, that I have bled freely a good many times in this service, I trust that my qualifications to speak on this interesting occasion will be admitted without farther question.

I suppose one reason for inviting one of my profession to appear here, is found in the fact that anciently the priests were the physicians. Not only was this true in the Middle Ages, among Christains, but in the most ancient times among pagans. In Egypt, all that was known of medical science was in the hands of the priests. Among the Greeks, the temples of Esculapius were the resort of the sick. In Rome, their remedy for pestilence was the erection of a temple to Apollo or Esculapius. It was only because a canon of the church, in mediæval times, forbade the priests to shed blood, that surgery fell to the lot of So you see, gentlemen, that you owe your separate profession to theological scruples. Had it not been for these, the clergy to-day would have been wielding the scalpel and occupying the dispensary—and your humble servant might have been-who knows?-at the head of this institution, inviting some of you, as a matter of compliment, to deliver an address! Perhaps it is better as it is. It may be a blessing to humanity that the clergy are ruled out of medical practice, and physicians out of theological dabblings. Certain it is that if the clergy carried as blind a dogmatism into therapeutics, as they often assert in theology, the world would wish back the happy days when there were no physicians; and if physicians were to bring into theology, the blind empiricism that has so long marked medical practice, it would no longer do to sing:

> "Religion never was designed To make our pleasures less."

Yet, after all, I apprehend there ought to be a close kinship between these professions, and that as the Savior of mankind "healed all manner of diseases among the people," and reached through the body to the soul, so medical science should ever subserve the highest interests of our nature, and open the channels for spiritual blessings.

I suppose I ought first to congratulate you on the successful initiation of this enterprise. While it is to those immediately concerned in it, a matter of special felicitation, that their infant college has entered on life so promisingly, and exhibits such indications of vitality, it ought not to be less a source of gratification to our community at large, that here in Cincinnati, already famous as the Western seat and center of medical science. this interest is growing with her growth and strengthening with her strength. And when we reflect, that this is but an initial movement—that its success but paves the way for enlarged and permanent measures of scientific and philanthropic value, which must add lustre to the reputation of our city as a center of science, the present becomes an occasion for general congratulation, that this new enterprise dawns on us with so promising a light, and speaks so well for the wisdom that originated it, and the labors of love that have fostered it so skillfully and successfully. Those who have shared in the toils and anxieties of the infancy of important enterprises, and who know the inner history of hopes and fears, successes and failures, struggles and weariness, that make the first years of experiment in a determined battle for life and position—those and only those—are prepared to offer suitable congratulations to the professional gentlemen whose unselfish appropriations and labors have originated and thus far sustained this hopeful movement to increase and enlarge medical science and the healing art.

But just here, in the midst of congratulation on the growing abundance and facilities and attractions in this department of science, we are met with a curious question. The very fact of these superior facilities which calls forth congratulations on our superior advantages over other cities, and the age we live in over other ages, starts a question not altogether curious, but really practical and suggestive. Rome it is said, for six hundred years had no physician. Shall we say, "Alas! poor Romans, how we pity you!" or "Blessed Romans, how we envy you?" How did they get along? They managed to worry it through somehow, and the race did not perish. Nay, they managed to send forth conquering armies, of invincible prowess, composed of men of splendid physical development, whose

renown for courage and endurance has never faded. Did Darwin's principle of "natural selection" prevail? Were the weak and sickly abandoned to their fate, leaving the race to be propagated by those whose unconquerable vigor could defy disease? Or did their more primitive style of living keep them strangers to a host of diseases engendered by the follies and vices of our modern civilization? Is it true, after all, that physicians and medicines are simply a necessary evil incident to our civilization—that after all our boasting, our arts, refinements and luxuries involve such departures from nature's hardy but healthful provisions as to shower upon us the penalties of violated law, in the shape of physical enervation, nervous derangement. scrofulous corruptions, and pulmonary disorders? Was Mother Nature more kind to her artless children in furnishing them compensations for their ignorance; and have her healing and comforting smiles been withdrawn from those who have been lured from her counsels by the witcheries of art and the luxuries of wealth? There is ample room for profitable discussion here, but we merely use these inquiries to suggest that, after all, it may be the chief province of true medical science to redeem us from the dogmatism and empiricism which early laid the foundations of the two schools that for ages ruled the world, and guide us back into harmony with Nature-into conformity with that "elder scripture" written with the finger of God, whose unvarying and infallible oracles are the only certain safeguards of physical health and happiness.

Meanwhile there are a thousand ills that flesh is heir to—the result of ignorance and of the popular heresies of a civilization not yet half christainized, with which physicians must battle as they can, and ward off from society the consequence of its own blunders and folly.

This leads us to say to the young gentlemen just graduating here, that they ought to go out society with just notions of their mission. It is not merely to make a living out of the misfortunes and sufferings of their fellows—though this, in the present state of things, is their immediate and necessary work—but as true philanthropists, to banish ignorance as they go, and to educate the people into an intelligent comprehension of the Jaws of their being. The great mass of the people are yet

in almost heathenish darkness on the laws of life and health, and the result is too often seen in scrawny offspring, in the ignorant infanticide that is practiced in our homes, in the entailment, constitutionally and by the false practices of ignorance, of deformities and diseases that plague the whole life with hopeless suffering, and in the premature decay of glorious manhood and womanhood, and their ignominious descent into helplessness and drivel, and death before the period that ought to be glorified with the noble achievements of a healthful and grand prime.

When we remember how modern a thing true medical science is:—that for ages men groped their way in darkness without daring to dissect a human body, that the crudest possible ideas were entertained as to the sources of disease and the mechanism of the human frame; that superstition was the most powerful agent in the healing art, so that even Cato the Censor trusted to charms and incantations, while the magnates of Rome knew of nothing better to do to stay a pestilence than to build a new temple to Esculapius, or to drive a nail into the Capitol; that for twelve centuries Galen held supreme sway, with scarce an improvement on his theory or practice; that even as late as the fourteenth century, a professor in the University of Bologna, in dissecting human bodies dared not to open the cranium for fear of committing a mortal sin; that it is but little over two centuries since the circulation of the blood was certainly known; that it was only towards the close of the last century that the first book on medical jurisprudence was published in our language, and not until the beginning of the present century, that an English course of lectures on medical jurisprudence was heard; that no farther back than the time of Samuel Butler-the author of Hudibras-it was but a description of what was popular even among the enlightened advocates of civil and religious liberty, when he says of an influential class of mountebanks?

"They'll feel the pulses of the stars,
To find out agues, croups, catarrhs;
And tell what crisis does divine
The rot in sheep, or mange in swine,"

That the discoveries in Chemistry, the revelations of microscopy, and the use of auscultation and percussion, are all of modern date; it is not to be wondered at that so fearful an ignorance

yet prevails among the masses of the people. With all of our boasted intelligence, it is yet found that many who are familiar with the motions of the planets and the geography of the heavens, know nothing of the house they live in, and continually violate the simplest conditions of health; and many students undermine health and life, while cramming the memory with what remains of ancient classics, knowing everything about Æschylus, Aristophanes, Homer and Virgil, and nothing of their own anatomy and physiology, and drenching their bodies with the abominable nostrums of hideous quacks to keep up their failing strength, and inspire them with new life, to search out farther mysteries of Egypt, Greece and Rome! Graves are continually opening to receive those victims of learned ignorance, and the world is robbed of the service of many a noble and glorious life, just for lack of a little light on the laws of life and health. What then, is to be expected among the masses? Is it any wonder that people will crowd into halls and churches that have no ventilation, and inhale and exhale a poisonous atmosphere, until, the victims of disease and pain, they innocently wonder what they have done that Providence should send this judgment on them; that parents will crowd themselves and their children into small bedrooms from which light and air are religiously banished, until all bloom and vigor fade and wilt, and then post off to the druggist's for a bottle of some Invigorator, or Renovator, or Panacea, and gulp down the nauseous decoction until what little life is left is squelched in the vile compound; that in food, in dress, in habits, in work and in play, we should continually set at naught the counsels of true science, and persistently crush out health and vigor from our frames, until disease becomes the rule, and health the exception in the refined and educated society of the nineteenth century?

When New York city provides that half her population shall be crowded into tenement houses—dens of filth and wretchedness, is it worth while to talk of this as an enlightened age?

The diffusion of intelligence touching anatomy, physiology, and hygiene is one of the great needs of the time. We are gaining much by partial instruction in these particulars, in our schools and colleges. But much more could be done, in every

neighborhood where there is an educated physician, by familiar popular lectures, at proper seasons of the year, and by encouraging the circulation of suitable scientific books and treatises. No physician need fear that his craft will be endangered by the increased intelligence of people. They are quacks and mountebanks who thrive on the ignorance of the masses. It is a mistake that general intelligence will diminish the need of the professions. So long as the present constitution of human nature abides, there must be princes and leaders in all departments of thought, officers to drill and discipline and guide the armies of humanity in all their movements. Were all the soldiers of an army fully educated, so that any one of them could, on occasion, act as general, it would not be less necessary to have officers. but it certainly would make better armies. The general intelligence of the people will require that their leaders become more fully educated, and still keep in advance of them, and for generations to come there will be plenty of room for philanthropy to operate in, in bringing the people up to the place now occupied by men of science, and in sending their teachers further on and higher up in quest of new treasures of truth.

We hold it to be unworthy the men of science to trade on the ignorance of the people. Leave all that to charlatans. It is a notable philanthropy that seeks to bring in "sweetness and light" to every life and every home, and ransom the multitudes from the bondage and suffering of ignorance.

RACES as well as families die out, simply from violation of the conditions of reproduction. It is the privilege, and the duty of the physician, to investigate these conditions, and instruct the people respecting them. Has the profession as a whole so carefully studied the effect of alcoholic drinks upon the unborn child as to advise intelligently?—[R. J. M. P.]

Theory and Prackics.

ALCOHOL IN THE TREATMENT OF CEREBRO-SPINAL-MININGITIS.

BY W. C. DAKE, M. D., NASHVILLE, TENN.

This disease having prevailed at different periods from the year 1805 to the present time, it is not surprising that inquiry should be made to discover remedies with which to combat it.

At all places where the disease has appeared, it has run a very rapid course; and been so fatal as to cause no little consternation in the medical profession, especially the old school, whose treatment by applications of mustard and turpentine to the cutaneous snrface, general and topical depletion, the free use of mercury, both by the skin and stomach, and opiates, has not only been unsuccessful but doubtless fatal in many cases, which under other treatment might have recovered.

The treatment by homœopathic remedies, though more successful, I believe will become yet more satisfactory, by the employment of a remedy which, though used in our schools some years since, has never been accorded the important place which it should have by virtue of its complete homœopathicity to the disease.

We will proceed to notice, in regard to the disease, its nature, its causes, its characteristic symptoms, and finally alcohol as its proper homeopathic remedy.

It is inflammation of the pia mater of the brain and spinal cord, resulting sometimes in the exudation of purulent matter. In the cerebrum it is found chiefly at the base, about the pons, the optic nerve, and the medulla oblongata; in the spinal cord, about the dorsal and lumbar vertebræ. It occurs chiefly in spring or early summer.

The causes of meningitis are most frequently miasmatic poison, mechanical injury, a fall, or blow, a cold, exposure to wet, rheumatism, exposure to the sun, over-exertion; though many cases occur in which no definite cause can be assigned.

The symptoms are chiefly these: a chill, though so slight often as scarcely to be noticed—setting in very suddenly, and not unfrequently with pains in the abdomen, and vomiting, fever; violent headache, restlessness, prostration of strength; quick, irregular pulse, "redness of the tongue at its tip and edges, the general surface being heavily coated; moaning, great lamentation, children predicting their own death," stupor, rigidity of the muscles, head thrown back, and moving from side to side, convergence of the eyes, loss or partial loss of sight or hearing, chest thrown forward with head and feet thrown back, (emprosthotonos) convulsions, and purplish ecchymosed spots, from which the disease derives the name "spotted fever," and which appear on different parts of the body, first on the eyelids, generally on the second day of the disease, still not appearing at all in some cases. As secondary, sometimes occur pleurisy, parotitis, and inflammation of the eye.

I will now briefly call attention to the sphere of action of alcohol, and see how fully it covers nearly every symptom of

meningitis.

In Volume VI., No 22, of the *U. S. Medical and Surgical Journal*, we find an article on "Alcohol," by J. P. Dake, M. D., in which he says that, "The first impression of alcohol upon the brain is manifested in the cerebrum, occasioning increased activity of the mind, exhilaration, etc. Its second or further impression is upon the cerebellum, causing derangements of sensation and motion; while lastly it bears upon the medulla oblongata and spinal cord, producing difficult respiration, tetanic spasms, etc."

From the pathogenesis of alcohol in the same article we get the following symptoms, usually characteristic of meningitis: "Confusion of ideas, errors of the senses, objects supposed to be seen, felt, or heard, which are not present, double vision, tremulous movements of the hands, stammering or muttering speech, eyes squinting, convulsions, the muscles rigid and contracted or extended, headache, sometimes with nausea and vomiting, obscuration of sight, pupils dilated and afterwards contracted, confusion of sounds, illusions of hearing, imaginary voices and sounds, flying pains, paralysis."

And again from the pen of the same author* we have the *Ohio Med. and Surgical Reporter, Vol. VI, No. 6.

following: "All writers, on the hitherto orthodox Materia Medica, have placed it (alcohol) high among 'diffusible stimuli,' and in detailing its physiological effects, mention that it excites nervous and vascular action, increasing the rapidity of the pulse and the temperature of the body, and so producing exhiliration, feverishness, congestion, and even paralysis and death."

As a consequence it has been employed in therapeutics, to overcome depressed vital action, nervous, vascular or organic, resulting from continued tevers, inflammatory actions, loss of fluids or other causes.

Tscheschecin, of Russia, and Moller, of Konigsburg, report that in some experiments made on animals, they found alcohol and alcoholic mixtures, after the lapse of twenty minutes, reducing the temperature of the body. And more recently, in some forty-nine experiments made at the University of Bonn, by Professor C. Binz and others, alcohol in various forms and qualities, administered to man and the lower animals, has been found after the lapse of a short time to lower the bodily temperature."

Prof. Binz says, "In consequence of these investigations the alcohol question may assume a somewhat different aspect.

The introduction of the thermometer into medical practice, to which only the unscientific will object, has taught us that high temperature in the febrile state, constitutes one of the most dangerous symptoms in various diseases.

Alcohol is thus frequently called upon to act as a preservative of life, by its antipyretic powers.

It removes the conditions which induce paralysis of the brain, and it should be employed in those cases, especially where the thermometer shows that too high a temperature is present."

In answer to Prot. Binz, the writer offers the following syllogism as expressive of the truth:

- 1. "Alcohol primarily increases nervous and vascular action, quickening the pulse and augmenting the heat of the body.
- 2. Alcohol in different forms removes febrile and inflammatory conditions.
- 3. Therefore, alcohol in effecting the cure of fevers and inflammations acts in obedience to the homœopathic law—Similia similibus curantur.

So far as we know Dr. B. W. James, of Philadelphia, was the

first physician to use alcohol in meningitis. He alludes to a case placed under the "alcohol treatment," which he had adopted for this "fever," and which speedily recovered.*

But the Doctor seems in doubt as to its homœopathicity and consequent curative action, and says, whether by bringing on a reaction in the system through its stimulative properties; whether it neutralizes the miasmatic poison existing in the body at the time of its administration, and by its rapid assimilation with that fluid produces its speedy reaction; whether it relieves the internal congestion, and throws the circulation to the surface of the body; whether the prompt and free perspiration it produces eliminates the miasmatic poison that is the cause of the disease, or whether it acts as a simple specific curative remedy, I will not here attempt to determine."

To me there seems no doubt that alcohol proved a valuable remedy in meningitis, owing to its being strictly homeeopathic to all its principal symptoms and pathological conditions, having the power to produce in the healthy organism similar cerebral and spinal excitation, etc.

Under Dr. James, "Alcohol treatment" the mortality was only one in sixty cases, while under old school treatment in the French epidemic† it was eighty per cent., and the general average has been from fifty to sixty per cent.

In Marcy & Hunt; we find brandy prescribed, and the authors seem to comprehend the curative action of the remedy when they say "For the purpose of supporting the vital powers and preventing threatening collapse, or for arousing the system from that state, it is a universal practice to give brandy; and this is generally done without much regard to the quantity that may be required. In general, small doses may be safely tried, and the effect observed. When it is truly indicated, its homeopathicity to the case is evidenced by its soothing and restoring influence; and it is observed to quiet the irritated stomach, calm the excited brain, and render the pulse stronger and slower.

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*N. Amer, Journal of Homœopathy, Vol. XIII, page 203.

†" Watson's Practice of Physic," page 204.

‡" Theory and Practice," Vol. I, page 529.
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It acts unfavorably when it causes nausea, pain in the stomach, headache, or symptoms of intoxication."

Its "unfavorable action" is clearly due to excessive doses.

Excessive doses of this remedy, especially when homœopathic to the morbid condition, may prove quickly injurious, and so prejudice its claim in the minds of the profession, as has often been done in the case of other valuable remedies. Because our allopathic brethren have slain the paralytic with their large doses of Nux Vomica, and often demonstrated the bad effects of Belladona and Opium in patients of large, full brain, and apoplective habit, we, as homœopathists, have not been frightened from their employment in such cases, in proper and curative doses.

I will now submit a report of two cases of the disease, occurring in my father's practice, treated mainly with Alcohol or rather whisky, under my own observation, with the happiest results.

CASE I.

Eunice W——aged 8 years, one hot day in May, 1872, had been running and playing in the garden, came into the house complaining of pain in back of her head and neck, which she described as resembling the pricking of needles, with headache and high fever.

Aconite and Bryonia were given but without relief, and on the following day she had marked symptoms of meningitis: some spots on the face, and great cerebral and spinal excitement, which rapidly grew worse, the muscles of the back and neck contracting, drawing the head backward, pulse quick and irregular, constant motion and talking, whinning, anxious countenance, saw imaginary objects, picking at them constantly, aversion to light, constant working with hands, difficult, choking respiration, pain in the chest, tongue red at the tip, pain in arms and limbs.

She had always been very delicate, and owing to this fact and the severity of the attack, her grandfather, a retired allopathic physician of standing, said, "there is nothing in my school can save the little girl."

Whisky, 2 teaspoonfuls in 4 tablespoonfuls of water, and Rhus rad., were given in alternation every hour, and kept up at increasing intervals, to the disappearance of the cerebral and spinal troubles, which were nearly gone on the eighth day.

From this time the disease assumed a typhoid form, with hard-

ness of hearing, etc., and the usual remedies were administered.

On the 15th day the little patient complained of pain in her jaw and earache, and was very fretful, crying almost constantly.

A swelling in the left parotid and submaxillary regions was observed, which soon became an abscess of large size, and was finally lanced.

Great prostration of course followed, but under China she rallied, pulse came up and improvement went on.

There being some disposition to coldness of the extremeties, and sloughing of the wound made in opening the abscess, with destruction of tissue, Nitric acid was given with marked benefit.

One dose of Silica was given, which promoted the closing of the wound by granulation.

Another point worthy of mention is that the little patient predicted she would die, and afterward remembered nothing which occurred during her sickness after the second day.

She continued to improve, and recovered without further trouble.

CASE II.

Carrie S——, aged about six months, was seized in June, 1872, with the prominent symptoms of meningitis, and rapidly grew worse.

There was a distinct chill, followed by fever, vomiting, restlessness, crying; the muscles became rigid and twitching, chest thrown forward, body resting on head and heels, motion of head from side to side, wild, frightened look, disturbed by the slightest noise, could not bear to be touched, throwing arms about, pulse rapid, excessively nervous, breathing difficult, and bowels slightly loose.

Whisky and Rhus rad. were prescribed, and given every hour in alternation for a time, and then whisky alone.

On the fifth day, being called in great haste, found the little patient on the verge of convulsions, breathing difficult and irregular.

A dose of Bell. was given, and shortly afterward Hyoscyamus, which latter remedy was given in alternation with the whisky and afforded relief speedily.

About the eighth day the cerebral and spinal troubles were

mostly removed, and the patient made a good and speedy recovery.

There being some trouble in digestion Nux v. was given, and to relieve colicky pains, Colocynth.

The case was dismissed on the fifteenth day.

In both these cases the whisky was undoubtedly the agent that subdued the meningitis; and in future, cases being the same, if under my care, whisky or alcohol will be used alone, except to check some special disturbances that may arise, not so clearly under the control of that agent.

In the discussion on Dr. Woodward's paper, on "Cerebro-Spinal Meningitis," I notice that Dr. A. Miller rather favors the use of *brandy*, and says, "In cases which have been badly treated, or where there has been a relapse, I have sometimes given a little brandy and water with excellent effect.

One of my patients took an incredible quantity of the best brandy without any intoxicating effect, but only good results."

Dr. D. S. Smith in reply said: "Concerning the use of stimulants, as brandy, etc., as recommended by Dr. Miller, my experience is adverse to the use of them. Stimulating treatment in typhoid fever, and in cerebro-spinal meningitis will certainly increase their fatality."

When alcohol or brandy is used as a "stimulant" and not as a homosopathic remedy in proper doses, I think Dr. Smith is fully right.

ON MEDICAL PRACTICE.

For forty years I have been a recognized member of the school of Homœopathy; and previously for a number of years of the allopathic school. During these years I have of choice and necessity been an observer, and I have had some experience. In February 1848, I made a record in view of the condition of the school of Homœopathy, which I am sorrry to say, that to my mind is more appropriate now, than it was then. Articles have appeared in journals, newspapers and pamphlets,

*United States Medical and Surgical Journal, Vol. VII, No. 28.

in which the absurd attempt is made to divide Homœopathy into, as one expresses it, "Hahnemannianism and rational Homœopathy." Another has it, "Homœopathy proper and Hahnemannian Homœopathy." And then "Pathological Homœopathic practice and Hahnemannian practice." Alas! Hahnemannian medicine and Homoopathy have of late years becomes two distinct systems. The basis of these divisions is, that Homœopathy is only a principle in medicine, and not an exclusive system; and that Allopathy is not to be fully rejected. The writer to whom I refer, declares they are Homœopathicians, but they do not believe in "Homœopathy, as presented in the Organon of Hahnemann," and yet all they know of Homocopathy was received from that work. These writers remind me of a pious man, who, while lecturing on the Bible, was interrupted by a person, who declared he did not believe the Bible. "What are you?" inquired the lecturer. "I am a man," was the reply. "A man! a man! Do you know that to be a fact?" "I do," was. the answer. "Then you believe in the Bible, for if you do not, you could not know whether you were a man or a jackass."

These pretended Homœopathicians have "stolen a livery from the court of Heaven to serve the devil in." Things plain in themselves, are placed before the profession in confusion, leading to an inference of a want of agreement in essential principles, among members of the Homœopathic school. Some men seem to think that physiological, pathological and therapeutical laws may be changed at the command of any up-start scribbler. Homoopathy in its very essence cannot but be an exclusive system. Prove that it is not so, and the irresistible conclusion must be, that it is nothing. If Homœopathy is only a principle in medicine, then the door remains open for all sorts of abomination in medical practice; especially is it open for the introduction of what is termed "Eclecticism," which is the true tendency of these pretending homoopathicians, who oppose the system of medicine as revealed in the "Organon of Homœopathic Medicine." All the writers to whom reference is made, admit "similia similibus curantur," and yet they do not perceive the absurdity of "contraria contrariis curantur." With all their seeming claim to acuteness they do not perceive that if one of these be true, the other must of necessity be false. The fact is

the latter is no law at all. Whatever is found useful in the practice of Allopathy, has strayed from its home, it belongs to Homoopathy. I assert this fearlessly, for there is occasionally a crude form of it, in the practice of allopathic physicians. And I go further, that much of the pernicious effects of their practice is caused by the administration of large doses of drugs which are in the therapeutic law; and yet the large doses of crude drugs in combinations which may modify or neutralize poisonous elements, are not always as pernicious as the large dose of drugs prepared by trituration or succussion, which are habitually used by some practitioners. There was a period when for two years in full practice, I scarcely used an attenuated drug, but mother tinctures in doses of one to five drops; the result of this experience was, that I well nigh made shipwreck of faith in Homoopathy. What does the professor care for this man's opinion or that man's opinion? Facts are sought for, tell us what you do, gentlemen, and results. Hahnemann cured Acute Pleurisies with a few doses of the 30th dilution of Aconite in from twenty-four to forty-eight hours, and his "stringent disciples" have done the same. Tell us, ye mongrels, ye eclectics, if you have other means of accomplishing so great a work in so short a time? KIRRY.

DISEASE AND ITS REMEDY.

The CAUSES of disease in general, that is, of disorder, evil, and discomfort in the human organism, are supposed to be the entrance of certain bad emanations from the earth or waters, or corruptions from the air, or something which prevents or checks the out-flow of the effete, and therefore poisonous matters which result from the wear and tear of life. Those evil influences or powers which come from without, appear to do their work only on those who are especially susceptible, within whose constitutions there is a corresponding evil tendency. They are distinct or specific in their nature, culminating in the forms of what we know as Typhoids, Intermittents, Measles, Small Pox, and the like.

Some of these unhealthy emanations are called Missms or Malaria. But such names do not shed any light upon their real na-

ture, for miasm merely signifies corruption, and malaria means bad air. Some wise men have claimed that these impure atmospheres are burdened with living sporules, in the form of minute plants or animals. But darkness continues to brood over this point. What the wise men can not see with their microscopes they guess at, and the guessing appears to be out of all proportion.

Infection (done into) is a reception by the system of the miasmatic virus or bad air, either directly, or through the presence and sphere of persons who have become diseased by previous reception.

Contagion (contaction) denotes reception from another by the touch, although it is often used in the sense of infection.

Acute Diseases are usually somewhat fixed or definite in their duration, run a certain course, and have their divisions or stages. But at the end of their legitimate course, they may subside in a modified and continuous form, or waken some latent evil tendency, and seeming to unite therewith may thus run on as chronic maiadies. That latent something, doubtless a taint which has been left by former diseases, and which may have been derived by inheritance from diseased ancestors, has been thought to be a sort of triune corruption. It has been called Sycosis-Syphilis-Psora.

Sycosis appears to be the inner principle, element, or virus of inflammatory pustules, tuburcles, excrescences, warts, cartarrh of all the mucous membranes, diabetis, gout, chlorosis, varicose veins, and such like.

Syphilis (pertaining to unclean mutual love), is the venereal disease, or its taint in the system.

Psora is thought to be the underlying principle of all or nearly all cutaneous eruptions, apparently spontaneous ulcerations, or sores. It covers, therefore, about all the ground which has been assigned to these three, and thus it may be considered the trunk on which the other two are grafted as branches.

Diseases appear to be divided, furthermore, into general and partial, or diffused and local. But they generally tend to localize themselves by converging to special points or organs, as fevers

to the head, lungs, or intestines. And those which begin as local maladies tend to spread themselves, or their effects, until the whole system is contaminated; as the vernereal disease, or any of those which enter as infection or virus at particuliar points of the organism.

The General Diseases, to which I propose to pay special attention, are the fevers. There are general, not only in their characteristic perversity for invading and occupying the whole system, but also in their general prevalence among the people. They carry most of the human family out of the world, and therefore call for a major part of the physician's time and attention. However much life may be undermined by local diseases, contaminations, and eruptions, they ordinarily become general, and put on the form of a fever, or a fever sets in upon them before the patients die; and unless the fever can be "broken," it hurries them rapidly to their end. Now they become especially alarmed, and call for help. The physician should be ready prompt and wise in his efforts.

Fever is but another word for heat. The term is applied to any of those groups of symptoms in which unusual warmth is ordinarily predominant, though coldness may precede, interchange or intermix, and in some cases may even seem to be paramount. Qualifying words are used to designate the different types or kinds of fever, as indicated by the comparative prominence of peculiar symptoms; as, "intermittent," "bilious," "typhoid," "yellow," "hectic," etc. There seems to be about twelve general divisions, classes, or groups of symptoms, ordinarily known as fever.

THE TWELVE TYPES OR KINDS OF FEVER.

The Irritative—Ephemeral or Synocal.
 Miasmatic—Intermittent, Remittent, Bilious.
 Typhoid.
 Typhus.
 Spotted—Cerebro-Spinal-Meningitis.
 Scarlet—Diphtheritic.
 Yellow.
 Pneumonia—Lung Fever.
 Measles.
 Varicella—Chicken Pox.
 Variola—Small Pox.
 Hectic.

Notwithstanding these are so distinctly marked as to constitute a dozen pretty well defined diseases, yet a certain train or course of symptoms, occupying in their progress longer or shorter periods of time, is common to them all. And thus comparatively few symptoms, with comparatively slight variations in the order of their development, make up their chief elements. These common elements in their common order may be stated as follows:

Stage First. Lassitude, or a sense of weariness; yawning; soreness of muscles; aching of joints, limbs and back; chilliness; loss of appetite; disturbed sleep; giddiness; depression of mind; mental confusion or debility; vague uneasiness; general discomfort.

Second or Cold Stage. This may be sudden, well defined, and severe, with shaking; or it may be gradual, creeping, and mixed with heat. It usually commences in the back, extends to the limbs, and becomes more severe at the extremities. The cold is real, the thermometer frequently sinking to 92° even in the axilla and under the tongue. Pains and discomforts in general are increased. If pain is very great in the back, the sign is bad. sibility may be diminished; functions of the mind impaired. far the symptoms appear to be mostly or wholly nervous. the circulation now becomes depressed; the pulse is feeble, small, and quick, or slow, the capillary circulation corresponds. face is pale and the features contracted; skin pale and shrunken; toes and fingers often wrinkle, nails blue or purple. ing may be short and hurried, labored, anxious. clammy taste; nausea or vomiting. There may be drowsiness or stupor; great prostration; congestion of the brain. The duration of this stage may vary from a few minutes to some hours, The patient, indeed, may never rally. or even days.

Third or Hot Stage. This comes on by degrees, appearing first about the face and eyes, and in the breath, and afterwards throughout the body even to the toes and fingers. It may alternate with the cold in seemingly intermingled streaks, and shivering may result, until at length it is established, outwardly and inwardly, becoming positive and absolute, as was the previous cold. Thermometer beneath the tongue, and in the axilla may be 105° or even 107.° The circulation is excited; pulse quick, full and strong, or small, tense, contracted; or feeble and compressible, as power in the heart appears to fail; the beats may range from 90 to 160 in a minute; the weaker the vitality the quicker and smaller are the strokes. The face is often flushed; and there is headache; throbbing in the head; head seems full, tense, heavy, light, giddy, or confused; may be delirium. The

eyes are sensitive at first to light, and the ears to sound, with sharpened sight and hearing; but afterwards the hearing and sight, together with taste and smell, may be impaired, the dulness increasing as the malady progresses. There is often restlessness, disturbed sleep, oppressed with horrid or fantastic dreams; or there may be wakefulness or stupor. Pains in the back, limbs, body. Thirst, sometimes insatiable; mouth dry, though sometimes moist; bad taste; furred tongue. Skin usually dry, but occasionally the reverse. Breath foul, urine scanty, and highly colored. This condition may continue from an hour or two to several days or weeks, or even months. When the attack is overcome, cured, or has spent itself, prespiration shows itself, the tongue moistens and begins to clear (from tip and edges inwardly), the urine is increased, thirst disappears, and appetite returns.

It may be noticed with regard to these three stages, which, though greatly modified, are common to all the fevers, that all the symptoms of the first stage indicate depression of the vital forces, all the symptoms of the second stage denote the same with rapid increase, while the symptoms of the third stage indicate a seeming elevation of the forces, as if struggling for supremacy, and yet their weakened state is painfully apparent, for, how prostrate is the patient! Can stand with difficulty on his feet, if he can stand at all, his energy of mind is also gone, and usually his courage. He is really more prostrate in the seeming elevation of this burning stage than in the former two. Depression, therefore, is the one preponderating element, or consequence, of fever. Let this be borne in mind when searching for the proper remedies.

We may next proceed to examine the twelve fevers separately.

LEWIS BARNES.

The Schools of Medicine and Modern Science are hand in hand seeking out the mysterious Life problem. Some delight in the apparent skepticism involved in these investigations.—Others refuse to search from the same cause. The true philosopher seeks after truth confident that Deity is above and beyond the accidental revelations, or strange translations, of the short lived theories of a day.

SPECIFICS.

Specifics are medicines known to cure certain diseases. particular drug of this class of remedies must sustain some definite and unchangeable relation to that form of disease of which it is the specific. This relation indicates the existence of some natural law controlling the action of all those remedies which experience has demonstrated will cure certain definite forms of disease. When results so uniform are seen in the treatment of a few diseases by their respective specifics, every reflecting mind is ready to ask—why may not all known diseases be equally amenable to treatment by existing remedies, which may yet be shown to be their appropriate specifics? If the relation can be determined, of the few specifics already known, to the diseases which they invariably cure, when properly administered—may not that relation be so formulated as to become a guide in the selection of remedies which will be found, on trial to be specifics for all curable diseases.

It cannot be that the cures by specifics are only so many accidents, happily made by physicians without due reflection or forecast of results. It is much more rational to conclude that the cures effected by this class of remedies are due to some inscrutable law, or perhaps a law already known, governing the relation and action of these and all other drugs. If scientific experiment has determined both the characteristics of the diseases and the qualities of those drugs known as the specifics, is it not within the scope of science to discover the principle or law, by virtue of which all such cures are made possible? If science can tell why a few specifics cure a few diseases,—can it tell where to look for specifics for every known disease? If not-why not? If science can tell why Quinine cures intermittent fever, or Mercury cures syphilis, or Secale causes contraction of the uterus, or Belladonna dilates the pupil of the eye,-would not the reasons given involve principles equally applicable to a great number of diseases, that yet await the discovery of their appropriate specifics?

It is claimed for Homœopathy that it has a law of nature as its basis, whose proper interpretation gives the true reasons why specifics cure the diseases for which they are administered. That

law whose formula is expressed by the terms "similia similibus curantur," teaches that the physiologico-pathogenitic properties of these specifics will produce symptoms in the healthy system similar to the idiopathic symptoms of the diseases which they cure.

Quinine, for example, in massive doses, produces in the system of the healthy experimentalist, symptoms similar to those always associated with that type of intermittent of which it is the specific.

The cure is explained, according to the law referred to, by virtue of this very property of Quinine to cause symptoms so closely resembling those found in the form of fever it always cures. And the reason why it will not remove every type of intermittent, is because its true pathogenetic properties do not resemble the prominent idiopathic symptoms of the types it fails to cure. The similia being not found in the pathogenesis of this drug. the cure sought does not follow its administration in these types foreign to its inherent nature. But, unfortunately, something else does, a compound disease, made up of the original intermittent and the disease caused by the massive doses of Quinine. a condition much worse than the original disease; far more difficult to cure and never curable by quinine in any form of administration. No principle or law known to science, other than that already given, can offer any satisfactory solution to the questions demanding reasons why quinine will cure one type of intermittent, but will not other and different types. It behooves gentlemen who reject Homeopathy and its law of cure, to give us reasons answering the demands of true science, for the specific action of quinine on the fever it cures, and of mercury in syphilis, and so on to the end of the entire class of specifics which they habitually prescribe.

In the homœopathic treatment of disease, the similia discovered between its symptomatic expression, and the characteristic action of any particular drug determines the one to be administered, so that in the cure thus effected, the physician may be said to have selected the specific of that form of disease. Hence, the system of Homœopathy may be regarded in a very important sense as a system of specifics. Not that particular remedies are set off against certain diseases as their invariable specifics, only so far as their particular manifestations may correspond with the

pathogenesis of the drugs that do and always will cure diseases developed under those special symptoms. In so far, then, as medicine approximates scientific ground, when results may always be exhibited under conditions that may be repeated indefinitely—specifics occupy that position. In so far, also, as the action of these remedies is susceptible of scientific explanation, such explanation is found under the law, "similia similibus curantur." No other professed law of cure embodies principles and determines relations that will bear equally rigid and exact comparison, both with the idiopathic expression of disease and the known properties of the drug or drugs that cure it. If any one doubts this assertion let him bring his favorite theory to the proof, and show where the curative relation and properties of his drug, the simple or compound, exists, in a manner that fulfills to an equal degree the demands of scientific medicine.

M. H. SLOSSON.

CASES FROM PRACTICE.

Chronic Eruption, Graphites.6m REMARKS:-A little girl 4 years old, health generally good, during three months has had an eruption over the nates and posterior part of the thighs. There was no diffused redness, but there were numerous small brown scabs with put slight appearance of moist-Scratching had probably contributed to produce the present appearance. There were occasional paroxysms of itching and these were so troublesome during the night that the rest of parents and child had been greatly disturbed. The case had been ineffectually treated during the three months by an allopathic physician. Some small, red, itching spots had recently appeared on the arms. Graphites one dose, succeeded by a daily powder of sac lactis, cured the case in ten days. child rested better the first night and slept well afterwards. The eruption had nearly disappeared at the expiration of a

The physician who cannot await the result of the administration of a single dose of a remedy in high attenuation in a chronic case, and in some acute cases at least, cannot acquire a knowledge of the value of high attenuations. In so saying, I do not mean to rank myself with those who would be exclusive high attenuationists; not because I should be averse to their company, but because I do not know, probably, how to prescribe as accurately as they do. Of this much I am confident, that I would, at times, in past years, have failed to benefit a patient if I had not trusted to high attenuations after low ones of the same remedies had accomplished almost or quite nothing.

CASE II. Cholera Morbus, Calomel, one-sixth grain doses. Dr. Wood blunders upon Homocopathy.—A negro woman at 40. The attack was a severe one of bilious cholera morbus, occurring in the summer of 1868. The patient had been vomiting and purging about two hours, and her distress was said to be increasing. The symptoms plainly indicated Mercurius.

I Remembered that Dr. Wood, in his "Therapeutics and Pharmacology," (article, Mercury,) had stated that "a true cholera morbus, with copious vomiting and purging of bile, is not infrequently induced by a large dose of calomel," and in another page, that "singular as it may seem, an excessive secretion of bile by the liver will generally yield with great facility to the same treatment [Mercury]."—"In cholera morbus, after the stomach has been washed out by free draughts of chicken water, or some other demulcent beverage, let one-sixth of a grain, each, of calomel and opium, to be given every half hour, while a strong sinapism is applied over the abdomen, and the disease will, I think, be generally found to yield speedily. If any one be disposed to smile at the minuteness of these doses, let him try the plan, and afterwards decide as to its efficiency."

Wishing to test the value of one-sixth grain doses of calomel, I quickly prepared them and administered a dose,—omitting the opium and the sinapism, and not waiting for the preparation of chicken-water or another demulcent draught. I sat by the patient three-quarters of an hour, and, having found at the expiration of the first half hour that the patient's symptoms were improved, a second dose was not then given. She was still better at the expiration of 45 minutes, and I left two powders with her husband, and the direction to give one at the end of the hour if she was not still better, and the second one the hour after if she was not relieved. I could not visit the patient until the next morn-

ing when I found her at the door of her house. She reported that her husband had given her one of the powders, although she was much better at the expiration of the hour and then she handed me the remaining one.

I was not disposed to "smile at the minuteness" of Dr. Wood's dose, but I was disposed to smile at the parts opium and the sinapism were supposed, by Dr. Wood, to play in his cures. I could not agree with Dr. Wood that the success of the treatment proved that the action of mercury is "really alternative." I could discover nothing but an illustration of "similia similibus curantur." I have always wished to know the maximum doses of homeopathic remedies which will cure, as well as to know about the limits on the side of attenuation. At the same time I have believed that the smallest and most attenuated curative doses—the promptness and thoroughness of cure being properly considered—are the best. Whether one hundreth or one thousandth of a grain of calomel would have cured as well or more thoroughly, I cannot say.

CASE III. Chronic neuralgia, Kali bichr. 200 Permanent relief after 24 hours. Miss A. S., sanguine lymphatic temperament. During six years she had suffered frequently and often severely from pains in the limbs, especially in her arms. She had sometimes been confined to her bed three days at a time. Allopathic remedies had one after another alleviated the pains temporarily; but finally everything had failed to relieve. When seen she was in bed, and somewhat feverish. The pains in the arms when most severe were attended with cramping of the hands. The trouble came on six years before, and succeeded a very protracted attack of diphtheria. She said that whenever she had been without the pains in the limbs, she had pain and uneasiness in the stomach, and pain in the face (in the malar bones). The two were never present at the same time. She had not had sore throat frequently since she had diphtheria; but she always knew when she was about to have a sore throat, as she first experienced pain coming from the ears into the throat and neck. Kali bichr. in water was administered, one teaspoonful once in every 4 hours. She was relieved considerably in 24 hours, and at the expiration of a week was well. She had remained free from the entire trouble about HAMILTON RING. four years.

Urbana, O.

EFFECTS OF SKUNK BITES.

Dr. W. W. Fox of Kansas states briefly five cases in which persons bitten by skunks died with symptoms resembling Hydrophobia.—[Medical Herald.

The animal poisons are among the most active of all the remedial agents employed in therapeutics, and it would be well if they were more fully and more carefully investigated. Their general range of action seems to be prominently upon the nervous system of animal life, and hence it is in all cases of diseases of strongly developed nervous character, that they will undoubtedly be found to be the most clearly indicated and therefore the most valuable.

The suggestion of a substance capable of producing symptoms analagous to those of Hydrophobia, ought to stimulate investigation as to its qualities and full pathogenetic effects. What a blessing to mankind would be the discovery of a specific remedy for that terrible disease!

Physiology, Microscopy, Eic.

MATTER OF LIFE, AND LIVING MATTER.

By matter of life is understood simply that substance which is capable of being transformed into living matter of an organism, and which is sufficient to maintain its structure, and manifest its functions.

That protein substance which is able to do this with the least transformation, and the greatest facility, on account of its extreme mobility, is called colloidal. Its invariable constituents are C H O and N, while its variable, or incidental constituents, are Sulphur, Phosphorus, and the various mineral salts. Protoplasm is non-living matter, cabable of being converted into living matter, and all protoplasm, whether for the nutrition of man or any animal, high or low in the scale of existence, and however much it may

differ in its incidental constituents, or be modified by after development, corresponds in its original, invariable constituents, the four elements named, as every sample of protoplasm yet analyzed has been found to contain them; hence the expression, "Physical Basis of Life." All animal existence meets here on a common level, a basis which is convertable in either direction. The human organism is continually nourished from protoplasm derived from lower organism, and the humblest of organisms return the compliment by feeding upon the body of man. The philosopher of "Bitter Sweet" beautifully expresses this fact of existence.

Life ever more is ted by death. In earth and sea and sky; And, that a rose may breathe its breath. Something must die. . . . The falcon preys upon the finch, The finch upon the fly, And naught will loose the hunger-pinch But death's wild cry. . . . From hand to hand life's cup is pressed Up beings piled gradation, Till men to angels yield at last The rich collation.

Living matter, as such, cannot be analyzed. Take for example muscular tissue.

By chemical analysis we find musculine, myocine, inosite, certain fatty acids, a great variety of salts, and water, but before we have completed the first step in the analysis the tissue is *dead*, for besides these purely physical properties, the muscle manifests, in conjunction with the organism to which it belongs, elasticity, tonicity, sensibility, and contractility, or irritability, properties with which chemistry does not deal.

But suppose that chemistry had ascertained every element and its exact proportion in muscular tissue, by what process would it be enabled to arrange this matter of life into the form of living tissue, into fibers, fasciculi, and sarcolemma, and to charge the one with positive, and the other with negative electricity. All this is brought about by the process of organization, in other words, by peculiar modes of motion, which have been correlated in a regular order of succession, and which can only be similated

by similar waves, occurring in like order, and under like conditions.

This rigid requirement is not peculiar to colloidal matter, or to organic processes.

Prof. Huxley long ago illustrated this principle in physical processes. A piece of Calc-spar is said to be the carbonate of lime, and may be separated into its constituents, carbonic acid, and quicklime, and if the carbonic acid be again united with the quicklime it will give carbonate of lime again, but it will not be Calc-spar, nor anything like it. The forces which have produced combination differ essentially from those which have produced crystalization. The distinction between combination and organization is similar, and differs only in its complexity. But if chemistry fails to account for much of the phenomena of life, it does not follow that the residue must forever remain unaccounted for. Other modes of investigation are to be instituted.

Chemistry reveals the existence of certain elementary substances, substances known by their reaction, by their spectra, and by certain properties.

Certain substances which enter into the formation of protoplasm, as phosphorus, oxygen, carbon, sulphur, and the like, manifest different properties, or qualities, under different conditions. supposed to be due to a different arrangement of atoms, e.g. Oxygen, and Ozone. Carbon has its three-fold aspect: the diamond, graphite, and charcoal, while Phosphorus assumes six different forms: Vitreous Phosphorus—the active form—is luminous, readily combustible, emits a disagreeable odor, and is very poisonous. The red amorphous variety is the passive form, exhales no odor, oxidizes slowly, is chemically indifferent toward other elements, may be handled with impunity, and is not poisonous when administered in large doses, but at 500° is reconverted into the active form, and bursts into flame; and this element existing in such a variety of forms, is found most abundant in that portion of the organism which is the theatre of the most varied and rapid molecular changes, viz. the brain and nervous system.

Asuming such a variety of forms under ordinary circumstances, in its nascent state, by catalysis it may assume others of which we have no knowledge.

If a redistribution of atoms so changes the character of an ele-

mentary substance, and if as Mr. Spencer says, "the properties of a compound are resultants of the properties of its components; taking into account the properties of the essential constituents of protoplasm, their mobility, activity, or inertia; their allotropism, isomerism, and the catalytic action to which they are individually liable in a nascent state, we see what wonderful molecular mobility must result in a mass of Colloids, and with what facility a re-distribution of matter and motion may occur. Organizable matter, composed of elements so dissimilar in their character, is very unstable, and readily undergoes changes of a retrograde character, as well as those of an ascending nature, or differentiation. Organic compounds are seldom composed of single equivalents of the elements entering into their formation.

According to Mulder the formula of Albumen is 10(C₄₀H₅₁ N₅O_{1.0})+S₂P, the particle of Albumen being made up of nearly nine hundred ultimate atoms. Simple as it may be in regard to the number of individual elements, it is nevertheless exceedingly complex in the arrangement of its atoms; and endless as is the series in which these nine hundred atoms entering into the composition of albumen may arrange themselves, are the modifications that may be wrought upon this original substance by the process of organization, differentiation, or development, even without the aid of any additional element; and this redistribution of matter implies also redistribution of motion, certainly not less with a compound substance than with a simple substance like carbon or phosphorus. Not only do some of the lower forms of life consist entirely of protein—matter of life, but very slightly modified from non-living matter—but even in the higher forms. as in the development of the chick, we have seen this substance formed into bone and muscle, feathers and claws, in the process of organization.

The transition from non-living to living matter is not abrupt, but is the result of progressive changes wrought upon one original substance. That this substance is originally and essentially the same, is shown from the fact that interchange in either direction takes place, and if there be any limit to this interchange it is not known. The transition from non-living to living matter is constantly occurring, and it is only by virtue of this transition

that organic structures are maintained. When colloidal matter is concerned in the functional activity of an organism, it reaches the ultimation of a redistribution of motion of a higher order, and a retrograde metamorphosis at once begins. ary constituents of the colloids are then in a nascent state, their potential energy has given rise to functional activity, and binary compounds of a lower order are formed, viz: Carbonic acid, Water, and Ammonia. These binary compounds will not answer the nutritive requirements of the organism of animals, although sufficient for the nourishment of plants, and are therefore expelled from the body. This continual death of the matter of life, occurring wherever functional activity occurs, exhausts the organism, and necessitates the supply of new material, which answers the requirements of the body, which is capable of undergoing metamorphosis of an ascending grade, and this matter may be derived from either plants or animals. In animals when life has become suddenly extinct, and decomposition has been arrested, the potential energy of the colloids still intact, not having been converted into functional energy, there is a store of material which may be transferred to other organisms. Whatever transformation may occur in the matter of life within the organism, animal bodies do not manufacture protoplasm. The constructive chemistry of animals begins where that of plants leaves off. The limit of power in animals being, as Prof. Huxley says, to convert dead protoplasm into living. Living matter thus arises, 1st. Binary compounds furnish food for plants, 2d. plants manufacture protoplasm. 3d. Animals convert this protoplasm into living matter, and from this living matter binary compounds again arise. J. D. Buck.

It is a matter of no small gratification to the medical profession that the greater part of that curious inquiry once directed towards the discovery of empirical specifics for diseases is now turned to the origin and structural changes of diseases. Pathology is a science of modern date, and was the forerunner of that department of physical science which treats of the origin of life, and the problem of function.

PATHOLOGICAL

PATHOLOGY is at a discount, but not in the homoeopathic school this time. In the celebrated trial of Dr. Schoeppe, Prof. Aiken testified to the finding of prussic acid in the stomach, after distillation of its contents with sulphuric acid. Dr. C. H. Wood points out the fact that saliva contains normally ferrocyanide of potash, out of which sulphuric acid generates prussic acid; and if the contents of the stomach contained saliva, as they doubtless did, what does the fact of finding prussic acid amount, to?

"A local physician [what sort of a nondescript that may be we are not advised] testifying in the same cause, swore that in his opinion, the deceased came to her death from the effects of some compound poison, because, her eyes looked like the eyes of a hawk killed by himself some years before with a dose of several virulent poisons mingled in one. Another local physician [these fellows seem to belong to a discreditable set of doctors, and should be ruled out of court,] when it was urged that Miss Steinecke might have died of a certain disease of the kidneys, the symptoms of which are like those attending her death, swore that he had made a post mortem examination of the body; that he had not looked at the kidneys, but that the liver was healthy, and such being the case, the kidneys could not have been diseased—a most extraordinary inference."

"Again, the jury had it in evidence that Miss Steinecke lingered for many hours after her seizure, and after the alleged dosing with poison, and they had the testimony of a competent toxicologist that prussic acid, if it does its work at all, does it in a few moments. But in spite of all this, the jury without difficulty, brought in a verdict of guilty, the bench accepted it, and the prisoner was condemned on the evidence; which, from the same bench, was stigmatized as being insufficient to warrant his commitment for trial." It will strike most people that it was not expert evidence that broke down in this case, [Oh! no, such evidence as the foregoing, broke, to begin with] but that there was very grave if not very disgraceful incompetency, in the legal and judicial management. [Pity the bar and bench had not learned wisdom from the medical experts.] In fact, had it not been for the immediate and indignant protest of chemical experts all over the country, Dr. Schæppe must have died an ignominious death, a victim to the lawyers, judges and jurymen, who put forward and received the evidence of two or three country doctors, [local doctors no doubt, who are to be carefully distinguished from city doctors who are never] obviously ignorant of this branch of the profession."

And all this done by the regular medical profession; why don't they study pathology and toxicology and medical jurisprudence? A course of lectures at some homocopathic or electic school would be of use to them, and then they would not be so "obviously ignorant."

T. P. W.

PATHOLOGY.—PHYSICAL AND PSYCHOLOGICAL.

In calmly considering man, in the spirit of unbiased philosophy, we find but little of unmingled good either in his physical or moral nature. In the clearest perception of our limited and finite view, evil would seem to be absolutely provided for in his constitution.

From the very springs of his enjoyment, health and life, flow also the elements of suffering, disease and dissolution.

If we consider the appetites, the source of so much of human happiness, and so indispensible to the preservation of the individual and the species; what a fearful sum of sorrow, sickness and death, do we not find traceable directly to them!

How curious and wonderful appear the processes instituted by nature for the restoration of injuries; and how essentially requisite do we find the results of inflammatory action to the safety and integrity of the vital fabric! In the contemplation of the phenomena of the healing process, the mind is impressed with the beautiful simplicity of the work of repair, in the use and application alone of the product of inflammation. And yet, on the other hand, out of this very process,—this law of inflammation, the wisdom and benevolence of whose final purpose have afforded so frequently a theme to the medical philosopher, will

be found to originate the most agonizing and fatal maladies that afflict our race. Indeed nature would seem to employ inflammamation as her favorite agent in the violent destruction of life.

The human mind, with its transcendent capacities for rational, healthful enjoyment, is found also to possess a power and influence, even to a fatal degree, over the complex mechanism of organic life. Few probably even suspect the vast amount of bodily infirmity and disease among mankind resulting from mental causes—how often the frame wastes, and premature decay comes on under the corroding influence of some painful memory. The mental agency in the production of disease, especially in the advanced stages of civilization, when men's relations are intimate, and their interests clash, and the susceptibilities of their nerves are exalted, can scarcely be adequately appreciated.

It is doubtless to this more intense and multiplied action of the mind sometimes in union with the abuse of the intellectual powers, that are mainly to be attributed the greater frequency of diseases of the heart and brain in the cultivated than in the ruder states of society. In seeking for the remote occasions of disease, the medical practitioner, too often no doubt, neglects those existing in the mind; and thus it often happens that while the physician is imputing the infirmities of his patient to all their most familiar causes, as bad diet, impure air, want of exercise, or improper clothing, it is in reality some sorrow unrevealed preying upon the springs of life. It should be the endeavor therefore of the physician to solve this occult problem; that he may "Pluck out from the memory a rooted sorrow;" and thus fulfil one of the prime duties of his profession. For says Plato, "the office of the physician extends equally to the purification of the mind and body; to neglect the one is to expose the other to evident peril. It is not only the body that by its sound constitution strengthens the soul; but the well regulated soul, by its authoritative power, maintains the body in perfect health."—A knowledge of the secret troubles of the sick, would, in many instances shed new light on their treatment, and save them from becoming the victims of active medicinal agents. We can very readily perceive that it may be no easy matter to decide in each individual instance, how much the mental operations are immediately concerned in the production of physical infirmities, and how far they act indirectly to the promotion of active diseases.

But of this fact we cannot well be mistaken; that the ambitious strife so active in our day; the anxious desire for success, and all the consequent moral agitation and suffering; of hopes deferred, or defeated; envy, jealousy and anxiety often do more, by far, to blossom the head with gray, and break down the constitution, than would even the most arduous physical efforts unblended with their operations.

These effects operate more swiftly and certainly in delicate and sensitive constitutions; and, if there exists any predisposition to any particular form of disease, as for instance, consumption or insanity, it will most generally be called into action, and attended with the utmost danger under their strong and continued influence. Sometimes these psychological impressions act immediately on the general nervous system; depressing, disordering and expending its energies, and even annihilating its power. I have many cases on my note book illustrating the proposition here stated. One where a wife was struck down with epilepsy. on being suddenly informed of the accidental death of her husband; another, a woman seized with a raging madness from superstitious fear, at the threatening and imprecation of her Priest. And still another, a man past the age of fifty years, who became a raying religious maniac from attending a series of exciting revival meetings in the church of which he was a member. I caused him to be sent to the Insane Asylum at Dayton: where in a few weeks he died from nervous exhaustion, a victim of psychomachy.

Thus it will be seen that all agents calculated to stir up such morbid emotions in the minds of the weak or susceptible, may be productive of the worst evils, both to the mental and bodily constitution. The powers of life unable to bear the tremendous strain, often sinks below the reactive force of nature, and science finds no fulcrum left, on which the lever of cure may rest.

C. C. Bronson.



Phstetrieal.

ON THE USES AND ABUSES OF THE WATERS IN LABOR.

The uses of the waters, so called, in labor, are varied and important. They subserve different offices in the different stages. In the 1st stage they serve.

- ist. To shield the child from direct contact and pressure of the uterine walls, and the uterine walls from direct contact and pressure of the salient portions of the body of the child. Considering the average duration of this stage, even within the definition of natural labor, and the liberty of body movement granted to the mother, and the intensity and caprices of her emotions in this stage; this office of the waters has an importance we can scarcely appreciate.
- 2nd. They float the cord for this most protracted stage, and thereby preserve it from danger of compression between the womb walls and the salient parts of the fœtus.
- 3rd. They keep the uterine wall at the seat of placental connection outspread, and thereby defend the utero-placental circulation from a dangerous degree of constringing force, and consequent curtailment of the utero-placental currents. Every pain interrupts more or less, the in and out-flow of these currents even with the waters intact, but when the uterus is emptied of it waters the interruption is very decided, and in labors of protracted first stage is the only rational explanation of the still-born births so common.
- 4th. They act through the bag of membranes which they force down, within and through the circle of the os, mechanically to assist the process of dilatation.
- 5th. They make possible and practicable and comparatively safe, manual manipulations in utero. On the completion of the first stage, they begin their proper office in the second stage. Assuming their enclosing membranes become broken at this time, they subserve other, and no less important purposes.
- 1st. Trickling down in the intervals, and spurting down during the pains, they cool and lubricate the soft parts, liable to become heated and dry and tender, by the pressure and friction incident to the progress of this stage.

2nd. Their gradual withdrawal thus from the cavity of the uterus, gives to its fibres increased power, and thereby shortening the duration of this stage.

Nature's ideal of the functions of the waters in labor is fully realized only when they remain intact until dilatation or dilatibility has been fully attained, and when at the inception of the second stage their membranes break, and they gradually draw away and become spent only with its close, signalized by the birth of a living, perfect child.

Their abuses are also various and entail on child or mother, loss, injury and danger:

1st.—Breaking them anterior to full or near completion of the first stage. For except to correct presentation or position, or for artificial delivery, or except in the exceedingly rare cases of abnormal quantity of the waters, or of hemorrhage or convulsions or intractable uterine inertia, or impending powerlessness, or for the induction of premature labor, breaking of the waters anterior to this degree of progress in the labor, is unfortunate, and may prove calamitous. It is true they sometimes break spontaneously before this, as they sometimes do before labor has begun from varied cases, from inherent weakness of membranes at some point; from unequal pressure, from irregular or violent uterine contraction, from faulty presentation or position, or faulty decubitus or violent cooperative, voluntary effort, or some deflection from the normal relation of the axes of the womb in the axes of the superior strait. Yet from whatever case occurring thus spontaneously, it is an accident and not a conservative expedient or alternative of nature.

Therefore voluntarily to break them in the exercise of obstetric art, anterior to the near completion of the first stage, except in the exigencies mentioned, is an indisputable abuse for which the impatience or discouragement, or pleading for an aid on the part of the parturient woman or her friends, or hosts of business engagements on the part of the obstetrician is, and can be no satisfactory apology or expiation.

2nd. In case of their breakage sooner than the near completion of the first stage, to grant to the patient such liberties of movement and position as will prematurely draw the waters away. As for example, promenading the floor, taking position on her knees straining, on the commode, or protractedly sitting, or rocking in her easy chair. This is a very common and reprehensible practice.

3rd. Deferring their breakage until the second stage is far advance or even completed. This is sometimes unavoidable from our not being in time, but it does sometimes occur in the presence of the obstetrician, from want of attention or misjudgment as to the rate of the progress of labor. As a result of obstetric negligence or misjudgment; it is an abuse full of peril both to child and mother. For besides the loss to both of the great advantages of their breakage at the proper time, the sudden emptying thus of the womb of child and waters together subjects the mother to the risks of hemorrhage and shock, and the child to asphyxia.

4th. Though broken at the proper time, not securing their proper escape in the progress of delivery, in sufficient quantity to cool and lubricate the parts, or materially lessen the distension of the womb, until it is emptied by the delivered child.

It is by no means an unusual occurrence for the circle of the cervix, so to firmly grasp around the advancing part of the child, or the advancing part to be so firmly ensheathed in the soft parts, within and at the outlet of the pelvis; as effectually to bear the escape of the waters until simultaneously with the completed delivery of the child. Such a condition involves the dangers just named, and demands the interference of obstetric art, and to the extent of gently pushing back the advancing part in the intervals of the pains joined with such changes of the patient's decubitus as will facilitate this manipu ation, and aid the accomplishment of the end to be attained.

J. C. SAUNDERS.

Every one blames in his neighbor what the world blames in himself.—Rochefoucguld.

Department of Physics,

CORRELATION OF FORCES.

In an essay on the progress of therapeutics, "Revue des Deux Mondes," June, 1st, 1872, Mr. Ferand Papillon remarked in regard to the influence of the advancement of chemistry on the art of healing diseases:

It is furthermore allowed, as Mr. A. W. Hoffman has lately pointed out, that it will be, before long, with the art of healing as it is with the art of dyeing. At the present time we do not, as formerly, try to obtain the different shades of color by a mechanical mixture of different coloring substances. It is the same substance, which, according to the desired color, must undergo a fixed chemical transformation. It is the same molecule, which, modified in its inner structure by suitable reactive substances, becomes red, blue, green and violet successively. He who watches with an attentive eve the influence of chemistry on all branches of manufacturing, has no doubts in regard to the realization of an analogous progress in other directions; he has the confidence, that therapeutics at some future day will achieve it to modify at will the properties of the medical substances no longer by means of mixtures in the bowl of the apothecary, but through exact and fixed transformations accomplished in the very inner nature of the acting medical principle Recent experiments by Messrs. Crum, Brown and Frazier have brilliantly inaugurated this department of investigation.

Therapeutics have profited and will derive more and more advantage from the results obtained in physics. The application of electricity, heat, cold, magnetism, light, in the treatment of diseases is yet in its infancy, although important results have already been achieved. We shall have to study with utmost care the action of these forces on the household of the human body. Are not these very same forces in the closest connection with the cosmic element in which we live, which is itself subject to the general laws of the mechanics of the universes? This means as much as saying that the art of healing is not independ-



ent of that art which investigates the relations of organism to those agencies which seem to reach them in a very limited degree only. In this manner history shows all the sciences constantly acting on each other, perfecting themselves by such influences. In this manner they support each other and are inseparable, and thus impart to the art of healing as well as to the other branches of human industry, a growing power and security.

Such is the force and value of speculation and methodical, experience undertaken without any concern about usefulness. But precisely for this reason, because this manifold and toilsome evolution accomplishes itself, even without the knowledge of those who are the workers, under the influence of a small number of general ideas of which Philosophy is the permanent source, it happens by a just and admirable reaction, that the deriving vitality from Philosophy in their turn again impart vitality to the Philosophy.

K.

Chemistry and Pharmacy.

ON SOLUBILITIES.

In physics there are two properties ascribed to atoms which are opposed to each other,—attraction and repulsion. The sense in which this word "attraction" is used is somewhat different from that of cohesive attraction, but the two forces mentioned constitute the antipodal causes of elasticity.

To illustrate the difference between this attraction and cohesion: The cohesive attraction of water is very slight. It is a mobile fluid, but, by extreme pressure, and vice versa, extension in vacuo, its interstitial atomic relations are modified to a slight degree. The proper cohesive distance of the atoms under static condition of heat, is one thing, but the same atomic distances under variations of elasticity is another.

These facts in philosophy led physicists to adopt the word "repulsion," to denote the resistence to elasticity, and as well, perhaps, to signify the static conditions of density.

It is the use of the term, and the meaning of repulsion to to which we object, in this connection. Before entering upon an extended argument to show that repulsion, as a force, does not exist in Nature, the subject of correlation of force should be carefully studied, as there can be no destruction of force, no ex penditure of force, or alteration of matter, without proper compensation. But a theme so extended the reader must study up elsewhere. We take it that there are no repulsive forces in nature. There is evident elasticity, as in steam, which developes our industrial powers. But steam is a static condition of matter as much as water, and the natural distance between the atoms is 1700 times greater than in water. And this distance of the atoms, and definite condition of the matter is due to the disappearance within itself of a large amount of heat. The word "latent" is used to express this condition of heat, although it is indeed a sorry term expressive of our ignorance.

If we object to consider steam as a static condition of matter, so existing by virtue of the unseen presence of heat, the condition of water will be open to the same objections, for it is equally maintained in its form by latent heat—as demonstrated by the the fact that ice at 32° melted to water by application of 140° of heat presents us with a fluid of just 32° temperature, the surplus heat existing in a state of latentcy.

Again, steam exhibits no repulsion, when allowed freedom to assume its natural condition, unless subjected to "superheat," which tends to expand it in exactly the same atomic ratio that "heating" does a solid, the ratio being related to the atomic interstices established by what we, in *ignorance' oblige'*, call latent heat.

If the assumption of the natural condition of any rarified matter be called repulsion, then we must also call all resistence to compression a repulsive force, whereas it is only the limit of the cohesive attractive force, limited by the singular relation of heat to matter.

But now we come to that strange provision made by phyicists for the general admixture of gases. It is called the "Law of

the Diffusion of Gases." It provides that all gases, of all specific gravities freely intermingle.

Of course this completely annihilates all previous ideas of the attraction of gravitation; and we presume assumes, without mentioning the fact, a sort of "latentcy" of gravitation—or for a hide and seek process, of which we are wretchedly ignorant. But do we properly understand all that this violation of the law of gravitation implies? Where is the necessity of ascribing capillary force to adhesion, or solution to cohesive debility, or vaporizing to repulsion, if attraction of gravitation steps aside to accommodate every philosophical problem. Here is one of these "asphyxiated centers," spoken of in the March number.

The diffusion of heavy gases throughout the lighter is ascribed to repulsive forces, the power of the repulsion being limitless, and of course in defiance of gravitation. It would be patent to ask, if carbonic acid gas will thus float upward through a mile of atmosphere, uninfluenced by gravitation, and resisted by atmosphere, why it will not continue upward to infinity in the less resisting medium above?

There is a strong probability that gases do not intermingle on account of repulsive forces, and that carbonic and other gases are as rare, in their static condition under a bell-glass, as their cohesive attraction permits.

For want of space we defer the continuance of this subject to another issue.

THE CHEMICAL CONSTITUTION AND TOXIC CHARACTER OF METALS.

Mr. RABUTEAU laid down, in 1867, the law that metals are more poisonous in proportion as their atomic weight is higher, or their specific heat is more feeble. He then addressed to the last meeting of the Academie des Sciences, a note on the toxic properties of the Salts of Calcium in confirmation of that view.—Low don Medical Record, March 5, 1873.

The great revelations which the science of chemistry is daily making cannot fail to be of the greatest practical importance to the Materia Medica, and hence to Therapeutics, if the facts

brought to light are properly studied and managed. Remedial agents certainly owe, in large measure, their power to produce pathogenetic effects to the chemical elements which enter into. their composition and the manner in which they are combined. While provings will always be essential to the development of the full effects of any element or compound, much will be gained in the way of convenient classifications, if certain effects can be predicated upon certain chemical constituents.

Proceedings of Societies.

MICHIGAN.

The State Society convened May 20th, at Flint. Dr. S. B. Thayer, President; Dr. I. N. Eldridge, Secretary; Dr. F. W. Cooke, of Illinois, and Dr. R. E. Miller, of New York, were introduced as delegates.

The Secretary then read a communication from the Superintendent of the Deaf, Dumb and Blind Asylum, inviting the association to visit that institution on Wednesday morning. The invitation was accepted, and the hour for such visit fixed at 7:45 A. M.

The Censors then reported that Fanny E. White, M. D., of Jackson; John Halbert, M. D., of Jackson; Thomas W. Robertson, M. D., of Battle Creek, had made application to be elected members of the association, and they recommended that they be admitted. Carried unanimously, and the new members were sworn in by Dr. Woodruff.

Dr. R. W. King, of Kalamazoo, then read a paper upon the use of the microscope in medical practice. He argued that the instrument was of great importance to the student, but it revealed much that was of no particular benefit. If reporters of scientific progress were sworn to tell nothing but the truth, he feared they would mainly keep their mouth shut. In his opinion, youth and inexperience talk too much. He advised the constant use of the microscope: One might apply it a hundred times and learn noth-

ing but patience, but the next observation might reveal a little world of knowledge. In the use of this instrument by medical men it was confined to tissues. The doctor then dwelt at considerable length upon the difference in the growth of vegetable and animal substance: the development of the germs of cellular tissue; the throwing off of diseased tissue, etc. The most rapid advancement and greatest degree of success were to be attained only by commencing at the lower and going to the higher branches of research, and by pursuing such research as childrenby having no preconceived ideas of the subject, but leaving the mind free to note the facts as they are presented to the eye and the understanding. In conclusion, he demonstrated the process of germination by the means of the blackboard, and showed the various stages thereof by means of the microscope and fern seeds. The lecture was, on motion of Dr. Pomeroy, accepted and referred to the proper committe for publication in the report of the proceedings of the society.

Dr. J. C. Jeffries, of Saginaw, then gave some interesting facts relative to the peculiar remittent and intermittent fevers of the Saginaw Valley. The chill comes late in the day, is of brief duration, and is followed by fever that sometimes continues through the night, passing off with perspiration. The liver soon becomes torpid, and the skin, and more particularly the eyes, become yellow. The allopathic course of treatment sometimes developes the fever into typhoid, but the homœopathic treatment usually effects a cure in four or five days, though sometimes there is a second attack in the course of a week or ten days, but this is soon broken, and it is seldom that there is a third attack. His experience was that ague can be cured with quinine, and he often used it in large doses. The only trouble was that it was used without the exercise of due discretion.

The association then adjourned until 9:30 o'clock Wednesday morning.

WEDNESDAY'S PROCEEDINGS.

Dr. F. Woodruff, of Ann Arbor, read a paper on the "Law and Principles of Cure." It was his intention to show that the law as discovered, developed and defended by Hahnemann was in consonance with all other laws of nature, and possesses a

specific relationship to life force. The relations of all other substances which exist in such wonderful profusion in the animal, vegetable and mineral kingdoms are antagonistic to the life force; each in its own individual degree, and each possessing distinct characteristics peculiar to itself in degrees varying from the mildest possible to the most deadly poison, each exerting precisely the same influence in life under similar circumstances. The purgative poison yet remains to be discovered that will, by primary action, cure habitual constipation, and every unfortunate patient who has vainly sought such relief will testify to a worse condition after than before, such condition being due to secondary action.

By the study and process of drug-provings we learn most conclusively the principle, both of drug disease and how to establish rules and principles of health. So extensive is this field of investigation that we are led to believe that no one can be truly intelligent on the principles of health, in any of its branches, without thorough knowledge of drug-provings. How otherwise can we account for the dissension and difference of opinion and deficiency of knowledge to-day existing in the ranks of all schools of medicine where the law of cure is not recognized or understood. To the true Homeopathist the duty to the public becomes imperative; for by the drug system all sorts of vitiated appetites are created, health in every branch is invaded, and from small deviations in the morbid appetites gradually intemperence in all its forms is indulged in.

Opium, tobacco, and all its list of so-called patent medicines, after the regular physician has failed to cure, follow fast in his train. We incline to the belief that fully seven-tenths of all the above evils are due to the direct influence of ignorance or disregard of the law of cure, and the principles resulting from it. The small dose of dynamtized medicine, meeting much more effectually the susceptibility of the already succumbed system, which, from its weak point, calls for its similia, can only approach the besieged structure with a universal recognition of the law of cure, an obedience to its teachings will result a clearer and more practical knowledge of physiology, dietetics and hy-

giene, and it needs no prophets to predict the result for good for humanity,

To be sick in a sense of violation of Nature's laws, is to be sinful. We therefore emphatically repeat that upon the system based upon the law, "similia similibus curantur," with its equally important deduction from experience of the "single remedy and minimun dose," alone can be established rules regulating health, physical, mental and spiritual, and a future perfect development of mankind such as should be aimed at by every physician and philanthropist.

The paper was referred to the Committee on Printing.

Dr. T F. Pomeroy, of Detroit, read a paper on "Materia Medica." The homœopathic materia medica is a record of the manner in which drugs and other agents are capable of affecting the healthy organism pathologically, of changing physiological conditions into pathological ones, to the study of pathology or of pathological conditions, about which such dust has been raised, as if the study of the symptoms of the disease from the materia medica supplies the most complete and accurate means, inasmuch as it presents, with the utmost detail and comprehensiveness, the phenomena of disease itself, and through which alone it may be studied and observed. for pathology relates to the living and not to the dead subject; to the condition indicative of life and not of death.

Dr. J. G. Malcomb, of Flint, read a very interesting and able lecture on "Medical Education," which was accepted and referred to the Committee on Printing, as was also the previous essay.

The committee on resolutions here reported the following:

Resolved, That this society heartily approves of the action had at the recent convention had at Ann Arbor in the selection of candidates for recommendation to the Board of Regents for the chairs of Materia Medica and Theory and Practice, and will give its hearty support to those whom it may select from these, or others whom, in their wisdom, they may choose for these positions.

This report was opposed by Dr. Calvert, who argued that the

Board of Regents was capable of selecting the candidates, and that he deemed it injudicious and wholly unnecessary to go out of the State to find professors in Michigan medical universities. He did not deny that the candidates proposed were able, competent men. They were so, but he believed there were homœopathic practitioners in this State who were equally able.

The President stated that in the procuring of these chairs in the University assistance and encouragement had been proffered and accepted from all parts of the country, and he thought it the wisest course to select the candidates without regard to location. No one could be selected from Michigan who would not be bitterly opposed on personal grounds. It was a notorious fact that the profession in this State was divided and full of dissensions. Outside this State the actions of all had evidently been disinterested, and prompted by the best of motives.

The resolution was also strongly opposed by Dr. Malcomb, who alluded to objectionable acts by certain of the candidates. and this led to a lengthy and somewhat energetic discussion.

Dr. Woodruff offered an amendatory resolution, but its presentation was opposed by Dr. Pomeroy, who characterized the course of Dr. W., in signing the original resolution and then seeking to introduce a substitute, as underhanded and ungentlemanly.

The President permitted the reading of the substitute, which was as follows:

Resolved, That we thank the profession at large for the interest taken in our State University as expressed at the late convention at Ann Arbor; and further, by the numerous letters of approval, and the effort made by the most able men among us to provide men of the utmost ability to represent Homœopathy in the chairs recently created by the Legislature, and in return, shall relax no effort to secure the right men for the right place, that our University, now so justly celebrated, may still advance and fully compensate the people for the ample provision made for that institution.

Dr. Eldridge moved to amend the amendment by striking out

all after the word "Legislature," and adding to the original resolution. And the substitute, as amended by Dr. Eldridge, was adopted.

The society then proceeded to ballot for officers for the ensuing year, with the following result:

President-R. W. King, of Kalmazoo.

First Vice President-F. Woodruff, of Ann Arbor.

Second Vice President-J. W. Calvert, of Jackson.

Secretary and Treasurer-I. N. Eldridge, of Flint.

Corresponding Secretary-J. G. Malcomb, of Flint.

Dr. A. A. Bancroft, of Lansing, and Dr. I. N. Eldridge, of Flint, were elected as delegates to the American Institute of Homœopathy, to meet in Cleveland on the 3rd, 4th, 5th and 6th days of June next, and Drs. W. J. Calvert, of Jackson, and A. I. Sawyer, of Monroe, were oppointed as alternates. As delegates to the conventions of other States, the chairman appointed J. G. Malcomb to New York, T. F. Pomeroy to Ohio, R. W. King to Illinois, A. I. Sawyer to Indiana, J. H. Wattles to Pennsylvania, and W. I. Calvert to California.

MISCELLANEOUS.

On motion Dr. Calvert the members of the society were created a committee of the whole to report within three weeks to the Secretary the name and address of every homeopathic physician in the State, the object being to prepare a directory for the use of the society.

Dr. Calvert, from the Medical Committee, reported the list of themes, and the lectures thereon, to be considered at the next regular meeting of the socfety, which was adopted.

The Treasurer submitted a list of those members whose dues are in arrears, the total amount being \$114, and was instructed to collect the same at once.

Dr. R. King proposed the name of Dr. O. Adams, of Flint, to be added to the list of members of this society. Referred to the Board of Censors, reported favorably upon, and the nomination confirmed unanimously.

The President then thanked the society for the kindness and courtesy with which he had been treated, and expressing the belief that Homœopathy had passed its days of small things, he

retired from the chair, and introduced the incoming President, who briefly thanked the members for the compliment tendered him by his election to that office.

Dr. Thayer moved to hold the next annual meeting at Jackson, and the semi-annual meeting on the 3d Tuesday in November next, in Detroit, and the President appointed Dr. E. H. Drake as chairman of the Committee of Arrangements in that city.

The meeting then adjourned.

THE INDIANA INSTITUTE OF HOMŒOPATHY.

The annual meeting of this Association was held in the City of Indianapolis, Tuesday, May 14th, 1873. In the absence of the President, Dr. Baer, of Richmond, the meeting was called to order by the Vice President, Dr. Compton, of Muncie. The attendance was small, yet the meeting was not without interest. There seemed to be a strong determination manifested by all present to make the "Institute" a success, and I predict that you will hear a good report from us after our next semi-annual meeting, which takes place the second Wednesday in November next.

Dr. Fisher, of Elkhart, read (by proxy) a paper on Cerebro-Spinal Meningitis, making some good practical suggestions in regard to its treatment, etc., recommending highly the use of Verat. v. Dr. Eggert, of Indianapolis, read a well written article on Anal and Rectal Fissure, which showed commendable care and research in its preparation. Dr. Sarchet, of Terre Haute, presented an essay on What Homeopathy Demands, and Morbid Growth. Histological Study was the subject of a paper by Dr. Haynes.

Three new members were added to the Society. The election of officers for the ensuing year resulted as follows: President—J. B. Hunt, M. D., Indianapolis; Vice President—J. A. Compton, M. D., of Muncie; 2d Vice President—C. T. Corlis, M. D., of Indianapolis; Recording and Corresponding Secretary—W. Eggert, M. D., of Indianapolis; Treasurer—J. R. Haynes, M. D.

Indianapolis; Board of Censors—Drs. Eggert, Hunt, Corlis, Elder, and Sarchet; Delegates to American Institute of Homoeopaty—Drs. Eggert, Watters, and Corlis.

Members were appointed to report at the next meting upon the following subjects: Clinical Medicine; Materia Medica; Surgery; Potencies and Doses; Pathology; Anatomy and Physiology; Microscopy; Provings; Contagious Diseases.

Yours, etc.,

REPORTER.

WE ARE WITHOUT an official report of the proceedings of the Ohio Homeopathic Medical Society in time for this number. Prof. Baxter, the Secretary, has promised us a full report for the next number. The meeting was largely attended, and the papers read and the discussions were all of the most satisfactory character.

Miscellaneous.

GENERAL CAUSES OF DISEASE.

BY DR. WM. CLENDENIN.

Read before the American Public Health Association.

We give this month a portion of the address of Dr. Clendenin before the American Health Association at its recent session. The entire address was worthy careful perusal and earnest thought, embracing social questions which must be answered by our present civilization:

In the enumeration of causes of disease the greatest prominence is given by authors to certain physiological processes—to the establishment and cessation of the functions of certain organs. What a train of childhood's ills is attributed to the evolutions of the primary teeth, and at the age of puberty how many diseases are connected with the catamenial flux, and later in life to its cessation!

INFANT MORTALITY.

It is humiliating to consider the frightful mortality among

children in American cities. One third die in the first year, and one-half before they have attained the fifth anniversary of their birth. This is the more remarkable when taken in connection with the fact that we raise successfully our domestic animals, but fail in rearing our own children. Where or how shall we seek to discover an explanation of this fact? Are mankind weaker and more fragile than they were once; are they obnoxious to more dangers now than formerly; and have diseases increased in number and severity; or do the requirements of society, the results of our social system, together with the omnipotent behests of custom and fashion, and the various springs put in motion by passion and party spirit, give rise to the constant causes of a more permanent interruption of the sense of well being?

Among the various causes assigned for the great mortality of children, "teething" seems to be the most common. Almost every disease of childhood is regarded by professional men the learned and the ignorant, as being the result of pain produced by the eruption of the milk teeth. "The cutting of the milk teeth," Marshall states, "is, doubtless, in many cases, though not necessarily, a painful process." If it is not necessarily a painful process, it is necessary to know when or under what circumstances it becomes so. The primary teeth, according to writers on physiology, begin to appear about the seventh month, and are completed at the expiration of the second year.

The statistics of the several health departments of this and of other countries demonstrate that the great mortality among young children occurs during the first six months, dating from birth, and consequently before the teeth begin to appear. The next highest mortality occurs during the last six months of the first year of life. This statement is fully corroborated by the mortality tables of every European country, as well as those of our own. Such tables prove most conclusively that the death rate among children steadily and perceptibly diminishes from and after the fourth and fifth months: that is, after the time at which the teeth generally begin to appear. For example, there were 7,497 children died in New York during the year 1867, whose ages were less than one year; of this number

891 died during the first week, 884 between the first and fourth week, 945 between the fourth and eighth week, 885 during the third month, 1613 between the third and sixth month, and 2,281 during the remaining six months of the year. In Cincinnati, during the last six years, 9,766 were reported to have died under one year of age; of this number 801 died during the first week, 778 between the first and fourth week, 825 between the fourth and eight week, 703 during the third month, 1,564 between the third and sixth month, and 2,014 during the last half of the year; showing conclusively that the greatest sacrifice of child's life occurs at a period when dentition could not have sufficiently advanced to produce any injurious impression upon the delicate nervous system of the child.

To what causes, then, may we properly and truthfully ascribe this discrepant mortality? And, what is it that so strongly predisposes the child of three months to diseases which one of as many years would successfully resist or escape altogether? Prof. Chail!ie, of New Orleans, states that according to the census returns of 1860, in each thousand of the population of the whole United Stotes there are about 29,07 children under one year of age; and there are about 124,03 in each thousand one year and under five years of age, giving an average for each of the four years of about 31,000 children. In healthy localities the death rate of children under one year of age ought not to exceed one in six; but in some cities of this country it is one to three and a fraction.

Again, we learn from the same authority that the diseases most destructive to life among children under one year of age are the same that, with few exceptions, prove so destructive to life during the succeeding year—viz: Convulsions, congestion, and inflammation of the brain; hydrocephalus, atrophy, and debility; diarrhea, cholera infantum, pneumonia, etc., etc.

TEETHING.

There are certain physiological changes taking place coincident with teething, but in nowise consequent upon it, which may become pathological. During the early period of childhood the food is taken into the mouth by a sucking process; there is neither mastication nor insalivation, properly so-called;

the glands of the stomach and intestines are only sufficiently developed for the digestion of albuminous liquids. Subsequently (and during the period of dentition) the salivary glands enlarge and become active, and hence the cause of the "drooling" so often witnessed, and supposed to be caused by the irritation of dentition; the glands of the stomach and intestinal tube undergo a simultaneous development, necessary for the digestion of starch and oils. During these changes there is an increased flow of blood to these numerous glands, and under favoring conditions diarrhea and other diseases of the bowels and assimulative organs may ensue.

The popular opinion in reference to dentition as a cause of disease, is often productive of evil consequences. It lessens the appreciation of true causes, and diverts attention from them. If a child is taken sick during the period of teething, the parents, deceived by the popular opinion, attribute the child's illness to that cause, and therefore do not look for, or suspect, the possibility of any other. Thus the real cause of the disease is not, perhaps, discovered at all, or not until it is too late to successfully combat the disease.

Among children the sickness and mortality follows the months, and in cities it is generally increased from fifteen to twenty per cent, by the heat of summer. There is, also, perhaps, a slight increase during the winter months, and vet the mortuary tables, compiled with the greatest attainable accuracy, for many years, prove most positively that on the average of years, and, also, in each single, successive year, the mortality is excessive in cities and large towns as compared with the immediate adjacent country districts under the same climatic conditions. Again, the death rate is never uniform throughout all portions of a city. Those parts which are clean, the houses properly constructed and well ventilated, and where the inhabitants have pure water and good food, show moderate bills of mortality, while, on the other hand, those localities in which the streets are narrow and filthy, and where poor people live in cellars or underground rooms, or are crowded together in tenement buildings, erected, perhaps, upon ground made of the sweepings of streets and market

places, and the debris of the city, and where the contents of privies surcharge the porous earth around, the death rate is always much higher, and especially when to these conditions is added high temperature. Wherever these conditions are met with sickness must ensue, and thus not only dentition and other physiological processes incident to growth and development may become abnormal, but if long continued they certainly result in physical deteriorations. Nor can the rich selfishly conclude that they will not be effected by these evils which they allow to scourge the poor.

INFANT'S FOOD.

The hygienic relations of food is a subject that is supposed to be generally understood, and yet nothing in our practical every day life presents so many examples of ignorance, and exhibits such flagrant violations of the laws of health. The history of the Irish famine and pestilence of the years 1846 and 1847 developed the dreadful effects of starvation, and fully demonstrated that the want of food in sufficient quantities to sustain the body is not only a predisposing but actually an exciting cause of disease, and may cause the most terrible epidemics.

The quality and also the adaptation of food to the age and condition of the digestive organs, exercises a powerful influence in the development of disease.

In his treatment of infantile diseases, the medical attendant very seldoms inquires further than to assure himself that his little patient is nourished by its mother, disregarding or forgetful of the fact that the secretion of the mammary glands, both in its quantity and quality, is strongly and directly influenced by the nervous system, and especially by emotional states. Sir A. Cooper affirms that "there is evidence that the mammary secretion may acquire an actually poisonous character, under the influence of violent mental excitement." The same writer states that "Fits of anger produce very irritating milk, followed by griping in the infant, with green stools;" also that "Anxiety of mind diminishes the quantity and alters the quality of the milk." "A fretful temper lessens the quality of milk, makes it thin and serous, and causes it to

disturb the child's bowels, producing intestinal fever and much griping." These statements are fully corroborated by other authority.

It is a well known fact that the milk carries with it, to a greater or less degree, the peculiar characteristics of food. Exercise, when excessive, diminishes the quantity of butter, and increases the amount of caseine. What, then, must be the effect upon the child nursed by a mother who is constantly subjected to the harassing and depressing influences of poverty, and its attendant consequences, living, perhaps, in a damp and vitiated atmosphere, upon scanty and unwholesome food?

[Although averse to "continuing" these long articles from month to month, we feel strongly inclined to give the remainder of this practical address next issue.—Ea.]

MICHIGAN—that is the homoeopathic part of it—like Mexico, is in a state of chronic chaos. In view of this fact Chicago has declared a Protectorate. The other day the Chicago doctors having nothing to do at home went down to Ann Arbor, and, in a Pickwickian sense took forcible possession of the University. Hereafter order will reign in Warsaw. The spectacle may be a payneful one, but then their dish will be properly cooked for those fellows understand their business, also any body else's business that may need seeing to. Commend us to Chicago,

FILIAL piety sometimes assumes most affecting forms. A physician, who pays a great deal of attention to anatomy, was presented by his son upon his birthday, recently, with a very interesting corpse, which the devoted child had resurrected from the cemetery the night before. When the father saw it, he sat down upon the piano stool and burst into tears. He said that at last he felt repaid for all the trouble he had had with the boy, for all the nights he had charged around the room with him in his infancy, and for the anxiety with which the father had watched and directed the growth of the child's moral nature.

Dr. L. E. Ober expects to return from Europe in time for the meeting of the American Institute of Homosopathy.

THE NEWLY ELECTED members of the Michigan Homœopathic Association are sworn in. We would like to know the nature of the oath. Is it iron-clad or sugar-coated? There has for a long time been so much swearing in Michigan over homœopathic affairs that any more of it, official or otherwise, would seem to be superfluous.

ASIATIC CHOLERA is at last officially declared to be making its way across the North American Continent. The Cincinnati Health Officer, has given due notice that the disease is rapidly ascending the Mississippi. At present the disease is only sporadic, but unless the most stringent hygienic measures are instituted, there is likely to be an epidemic outbreak. Each doctor should volunteer as a vigilance committee, and give special attention to sanitary measures throughout all our cities and villages. It is to be hoped that careful reports of cases may be made if such occur. For once let us get at all the facts.

Dr. D. H. Beckwith and family are in Paris. They will return home in August.

The Cincinnati Homœopathic Pharmacy heretofore conducted by two worthy gentlemen, Messrs. Smith and Worthington, recently passed into the hands of Geo. W. Smith, as our readers noticed by the changed advertisement. The firm enlarged since by the addition of the name of J. M. Parks. We are confident that these gentlemen will not disappoint the profession in the quality, price, and ready preparation of articles in their line.

DEATHS FROM CHLOROFORM.

From the Medical News and Library we gather the reports of several deaths from the use of chloroform, given for its anæsthetic power. Death will at times occur suddenly, even after, and seemingly the result of, the administration of agents not regarded as specially hazardous, but there seems to be a want of knowledge as to the circumstances and peculiarities of organizations under which this powerful agent is safe, that suggests the necessity of still further investigation as to its action. We cannot dispense with it or some other anæsthetic, but let us, if possible, render its administration more safe.

BOSTON UNIVERSITY.

HOMEOPATHIC ASSOCIATION ORGANIZED.

The movement which was put on foot by a number of leading homeopathic physicians, and acknowledged and supported by the sentiment and work of the friends of this medical practice, to wit: the establishment of a Medical Department of the Boston University, was crowned last evening at Wesleyan Hall with all the powers and dignities of organization. Quite a number of physicians, including several ladies, assembled at the hall here named, and gave their body a name—The Homeopathic Association of Boston University. The selection of the title was the first business of the meeting.

The above having been accomplished, a code of by-laws was presented and disclosed. The original document received but little change in a material way, as it was made a little broader, and specific to provide for the education of women, and a representation of the ladies in the office of secretaryship. The clauses relating as here described read as follows:

The object of this Association is to aid in founding and supporting a Homoeopathic Medical School for the education of men and women, in the Medical Department of Boston University. The officers of this Association shall be a Presidedt, four Vice Presidents, a Treasurer, two Corresponding Secretaries and a Recording Secretary, who, with a committee of six, shall constitute

an Executive Committee of fifteen.

The clause relating to membership provides that any person may become a member of the Association by paying into the treasury the sum of \$3 annually, and such person may become a life member by paying the sum of \$30.

The business of the organization having been completed most satisfactorily to all, matters of general interest relating to the As-

sociation and its cause were informally discused.

The rolls of membership were increased, and now comprise the names of forty life-members and two hundred annual members. At this meeting were also raised two thousand dollars by subscription, which, with what is pledged, gives the institution a promising financial basis.

In one month from last night the Association will hold their first public meeting in Music Hall, when a supper will be one fea-

ture of the entertainment.

The meeting last night adjourned subject to the call of the Executive Committee.—Journal.

THE

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ROMANCE never very materially modified medical journalism, nor in fact any other journalism. This profession is reduced to hard matter-of-fact by the irrepressible common sense of reading people. Enthusiasts may invest liberally in fancy type, showy pictures and flashy wit; they may even pay for heavy literature for their publications, and arrest public attention by sightly advertisements. But solidity of growth and real influence in journalism is a matter of time with even the best of merit. The romance of journalism is of the unfortunate and money-losing kind. Those journals whose character and stability is unquestioned have struggled up through earlier days of trial and uncertainty. Thus, with the ADVANCE, we do not expect prosperity to flow in upon us beyond all computation; but having set our face against the future, and prepared for a life-struggle in which rough treatment will threaten our existence, we propose

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to advance steadily, not violently, until the "upper plane" of medical journalism is in view. No success can be attained by tacitly imitating the "make-up" of our contemporaries. The demand of the times which gave the Advance birth, calls for scientific investigations, which are the children of medicine and not the parents. If philosophy can aid the genius of medicine, we say give it plenty of room, and assistance too.

IN POLITICS WE HEAR much talk concerning the foundations of government; in religion we are instructed that the wise builder builds upon the rock; and in medicine we are warned on the one hand to stick to the "Regular" practice, and on the other that Homeopathy is all sufficient.

Now I am one of those who believe that in the affairs of men there are no absolute foundations broad enough to build upon for all time; that human wisdom in one generation can not devise upon any foundation a superstructure that will meet all the requirements of the next. Whatever may be the character, or the civilization of one epoch, civilization itself is nomadic.

The right of governments to enact laws, and enforce obedience thereto, may be an absolute right, and yet no government or no statesmen has ever been able to define that right in its application to all governments, through all time. The religious element is a factor in human nature, and yet even those who claim to build on the one true foundation find that whatever may be the foundation, the building itself is constantly in need of repairs. And if in politics and religion readjustment of belief with experience is constantly found necessary, it is no less the case in medicine. The human mind never entirely outgrows its childhood; it is ever prone to regard its task as finished, its journey at an end, and it constantly mistakes the way-side inn for the final goal. The traveler who stops at a station for the night after a hard day's journey, is apt to regard with pity and commiseration him whose strength and endurance gave out at the station behind, and to warn him who pushes on to a station ahead, of the gathering darkness, and impending danger. All travelers on the same route, is it not clear that progress and velocity are questions of personal ability, and that a day's journey is only a relative distance, to be determined by individual experience?

I sometimes envy the serene contentment of him who has all

things fixed and determined; who never indulges a doubt; and who treats with pity or contempt those meddlesome fellows who go prying about with the microscope, to find out those things which the Almighty has seen fit to hide from unaided vision in a drop of water; or those who with the telescope bring the planets into dangerous proximity to the meridian sphere. It is easy to sit down in one's shell and admire its beautics, and to go to sleep and become a fossil: no inquisitive prickings of the understanding, when the shell is so smooth and so hard; no skepticism where the shell is so nicely adjusted, and shuts with such a snap on all intruders!

Sometimes, too, I envy that rare genius, who in the fields of knowledge has plucked every flower, or culled their sweets, and who loves them all too much to prefer any one in particular; who in matters of religion is orthodox one day, and heterodox the next; who treats one patient "Homœopathically," because he hates "nasty drugs," and another "Allopathically," because he has no faith in "little pills." Mongrelism tries to suit every body, is all things to all men, Jack of all trades, and good to point a moral and adorn this rule, if that were possible. Where then lies the true path? Absolutely, no where; relatively, everywhere. Fossilism builds upon the foundation of to-day a building which is outgrown to-morrow; and, having made no provision for adaptation to any increasing demand of to-morrow, it closes its shell and goes to sleep, not, however, till some ruthless tread has perhaps crushed its shell, and further explorers may find adhering to the fossil remains a tiny pearl of truth—all that remains of the once living structure.

Mongrelism builds upon the foundation a structure which tumbles at the first approach of danger, but which it rears again, like a man of straw, or a toy house of children, enjoying as much to see it tumble as to see it rise.

Back of all phenomena is the many-sided truth, which no human eye has ever seen entire; which no human mind has ever been able fully to grasp, and which, distort it as we will in our imagination, we cannot alter one jot or tittle.

Let us build upon the rock to-day, but let us provide for enlarging our dwelling to-morrow. Comparing human progress to the abitations of men, the first were made huts or caverns in the

ground, and looking back over the lapse of ages, and coming down to later times, these rude beginnings have grown with the progress of civilization into magnificent palaces with turret and dome, with frescoed walls and colonnade; and looking for ward in the line of progress they reach the very heaven of heavens, and on through the ages rises the temple of humanity that imagination fails to grasp.

From rude beginnings human governments have grown to vast proportions with boundaries as undefined, in relation to future possibilities, as they were when the chieftain's club settled all disputes, till one arose who could overpower and slay him, and yet this progress of government conforms to law. Religion has grown from superstitious rites, and slavish; fear, to systems of philosophy and codes of ethics, the expression and interpretation of many minds, the details of which could be realized by no one mind, and yet there is a law of religious and moral progress.

So in medicine, no one system, no one age, has reached the goal of perfection; with all our boasted skill, with every revelation which science affords, and every appliance which art has provided, there are diseases like cancer and consumption, affording ample time and opportunity for effecting a cure, and yet, which laugh the doctors to scorn, and riot and rot in human flesh, and torture human hearts, and desolate human hopes and homes like very demons, while the majority of ordinary ailments, by common confession, will recover, if the doctors do not too much interfere. Add to all this the undetermined riddles of physiology. and even the very mechanism of some of the organs of the body, to say nothing at all of the nervous system and mental physiology, and what but arrogance will boast of a goal already reached, of perfection already attained in the healing art, and what is left for the conscientious physician but to bend to his task with all humility, thankful if he shall be permitted to assuage human suffering never so little, without increasing the hazard which the confiding patient has already incurred.

Two objects are constantly before him: one, the legitimate pursuit of his calling, the relief of human suffering; the other, to render the task of relieving suffering less difficult for him who comes after. The glory of the one is for a day, the glory of the other, for all time. The first is too often for hire, the last is for all humanity.

J. D. B.

It is well known that the prominent action of two famous remedies in the regular practice is upon the brain. It requires constant care and watchfulness on the doctor's part to prevent immediately evil results following the administration of opium and quinine. Especially is the tendency to develop cerebral difficulties in the latter well marked. The medical fraternity at present exercise little care to avoid the evil results of the drugs except for present purposes. In the earlier days of mercurial glory the same circumstances surrounded the use of calomel. But in the course of years a marked mercurial cachexy presented itself in a large proportion of the human family. So great was the evil that even the laity declared against its use, and compelled a partial renunciation of it. Not many generations hence the mercurial cachexy will give away to the astonishing inroads of brain disorders. Crazy minds, already remarkably frequent, will develope in every quinine recipient, and demand that the universal use of that drug be stopped. The writer for a time presided at the prescription desk of a drug store, and quinine and opium, or quinine alone entered largely into the composition of three-fourths of all prescriptions compounded. There is an increasing demand for insane hospitals, and a strange mania for suicide.

WHAT a wonderful element is the blood! If it can father all the ailments—aches and quakes, blotches and blisters—which the every day doctor and devil ascribe to it, its sins must be as scarlet as sin can make it. If the drugs which have been taken to purify it had worked successfully, it would by this time constitute as famous a River of Life as that which the sacred writer immortalizes. In this day of official investigation there should be public blood-inspectors appointed to detect the countless rheums which demand the immediate application of a "Bloodpurifier." How many physicians are there who do not second that almost universal twaddle about the impurities in the blood, which are laid at the base of every pimple. Careful investigation would lead the physician to the belief that the blood was not capable of such fearful pollution as is ascribed to it, and that the unmitigated appliance of pills and purgatives would more generally produce in that fluid the condition they are given to ameliorate. \mathbf{F} .

METHOMANIA is what they call the unquenchable thirst for strong drink. In the Detroit Review of Medicine and Pharmacy a case is related where a person had taken nine and one-half gallons of whisky in twenty-five days. And still he did not have the delirium tremens. He passed under the treatment of a physician, however, for a species of insanity, and we are not informed of the result. An average of three pints of whisky a day is what we would call hard drinking, and fit the drinker for a straight jacket at least.

A writer in a regular medical journal has just heard from "Canada or Nova Scotia" that Sarracenia purp. (pitcher plant) is useful in Small-pox. Dr. Dorsch can ascertain something about it by opening a few homeopathic works.

Dr. Brown-Sequand has called the attention of the profession to a new method of treating dyspepsia, It rests upon certain hygienic principles, a little at variance with the popular notions of hygiene—but then that may be no special discredit. would be a blessing to a few who have not the dyspepsia to find out that two half-hours of eating and twenty-three half-hours of starving and digesting were not necessary to the preservation of health, and the "induction" of a peaceable stomach. It may be well to remark here that most food is digested within two hours after its reception into the stomach. Allowing a three-hours' average, and a hygienic interval of six hours interval between eatings, and the stomach would naturally be left in a condition as our neighbor expresses it, to "flop agin the back bone" for three hours. A question arises whether it is better to allow the stomach to remain empty, for rest, for any length of time when not sleeping, or as the following treatment suggests, keep it moderately active while all the other physical and mental functions are in a state of activity. After referring to an excellent success by his plan, Dr. Brown-Sequard says:

"The plan consists in giving but very little of solid or fluid food or any kind of drink at a time, and to give these things at regular intervals of from ten to twenty or thirty minutes. All sorts of food may be taken in that way, but during the short period when such a trial is made, it is obvious that the fancies of

patients are to be laid aside, and that nourishing food, such as roasted or broiled meat, and especially beef and mutton, eggs, well-baked bread, and milk, with butter and cheese, and a very moderate quantity of vegetables and fruit, ought to constitute the dietary of the patients we try to relieve. This plan should be pursued two or three weeks, after which the patient should gradually return to the ordinary system of eating three times a day.

It is hardly possible to give more detailed rules as regards this hygienic mode of treatment. On the one hand I have found few persons willing or able to follow it fully. On the other hand, many patients, especially those who have no dyspepsia, do not need to take so minute an amount at a time. Besides, it is certain that the quantity of food required varies notably with different persons, Prof. John C. Dalton states that the entire amount of food needed by a man in full health and taking free exercise is: of meat, 16 oz. av.; bread, 19 oz.; fat, 3\frac{1}{4} oz.; and of water, 52 fl. oz.; i. e., about 21 lbs.of solid food, and rather more than 3 pints of fluid. According to Dr. Edward Smith and other European hygienists, the amount of solid food and of water required each day is notably larger than that marked out by the able American physiologist I have named. My experience with the patients on whom I have tried the plan of feeding above mentioned, shows that the amount of solid food required by an adult is nearly always as follows: from 12 to 18 oz. of cooked meat, and from 18 to 24 oz. of bread. As regards the quantity of fluids I have allowed, it has always been notably less than the amount indicated by Dr. Dalton (3 pints), and by Dr. E. Smith (41 to 5 pints).

I hardly need say that in carrying out the plan I propose, attention must be paid to three points: 1st, the liking and the disliking of certain things by the patient; 2d, the importance of variety in food; 3d, the digestibility of certain things compared with others, digestibility which varies immensely in different patients. When I found that there was no disgust for a meat and bread diet, I ordered that roasted beef or mutton, with bread, be the almost only kinds of solid food taken. But most patients were either soon disgusted with this diet or refused even to try t. Having ascertained this, I allowed the selection by each pa-

tient of his own dietary, insisting, however, that the quantity of cooked meat should be at least 12 oz. a day. The most varied diet as regards the kinds of food can be followed, however, under this plan as well as when one has only two or three meals a day. The only absolutely essential points are that the amount of food taken every 10, 15, 20, or 30 minutes be very small (from two to four mouthfuls), and that the quantity of solid food in a day be from 32 to 40 oz., or a little less when, instead of water, the patient drinks beef-tea or milk.

I will not enter into long explanations to show how a marked benefit or a cure can be obtained in functional dyspepsia, in anæmia, and other affections, by this mode of alimentation. I will simply say that the facts I have observed agree with the view that we are naturally organized, like most if not all animals, to eat very frequently, and not, as we do, two, three, or four times a day. It seems certain from the facts I have observed that functional dyspepsia, when once it has begun (never mind by what cause), is kept up by distention of the walls of the stomach.

This fact is already well known, and physicians generally recommend that the quantity of liquid taken be very small, and that the solid food be as nourishing as possible, so that its bulk may be reduced, with the view of avoiding great dilatation by the fluid and solid substances introduced in the gastric pouch.

But although deriving some benefit from this diminution of distention, many patients continue to suffer who might be benefited or cured by the plan I propose.

It may be asked if there is no danger that distention of the stomach, by a full ordinary meal, after a patient has followed for two, three, or four weeks the plan I propose, would not be more difficult and a source of greater trouble than before that organ had been allowed to contract considerably during the time this plan has been pursued. Facts answer this question in a way that leaves no doubt. There has never been in the cases I have attended the least trace of an increased trouble due to that cause.

Even those patients who have not derived benefit from my plan of alimentation, and among them two who had while following it more acidity and flatulency, have at any rate, had no increased trouble after having given it up. It is probable that the good obtained from this plan in dyspeptic patients depends at first on the rest given to the irritated stomach, and subsequently on a great amelioration of the quality of the gastric juice.

In anæmia and chlorosis, not complicated with dyspepsia, the advantage of this plan lies in the rapidity of formation of blood from the notably increased amount of food that the patient can digest. I have made but very few trials — and incomplete ones — of this plan in cases of organic affections of the stomach. I cannot but think, however, that it deserves being tried in most of such cases. Against the most obstinate vomiting of pregnancy this plan has already been employed successfully by a number of physicians, and once by myself in a case in which many modes of medical treatment had failed."

EUTHANASIA.

Is there any thing new under the sun? Is the world going backwards or forwards? It would seem that we are progressing in a circle. We find our civilization developing rapidly in the direction of a discarded barbarism. That which we or our fathers rejected, and which we have long since passed and lost sight of in our onward march, comes to us again, or else we go to that, and behold it is a veritable new thing, and seems in every particular a modern novelty. Our ladies trick themselves out in fashions just imported from Parisian shops—they excite the wonder-possibly the disgust of mankind; we pity them, endure them, and embrace them; we photograph them, and our astonishment culminates, when from some obscure drawer, we bring to light the picture of our good great great grandmother, and discover she was just such a fool as are her daughters; wore just such curiously fashioned dresses; piled her hair in just such an agonizing form, and surmounted it by just such a lofty and artistically formed comb.

Our Puritan fathers adorned themselves in shad-belly coats and bell-crown hats. Afterwards these devices were left for the exclusive use of Quakers, and Methodist preachers, while the rest of the world adopted cylindrical and sugar-loaf crowns, and short waists with vertical skirts. Now days the fashionable young man sports his cut-away coat skirts, and dons his hat with such an expanding crown as would gladden the eyes of the Pilgrim Fathers, could they revisit the earth's scenes once more.

But it is by no means certain that, a thing is of no value because it has once or many times been disregarded. Mankind are slow to see the truth, and loth to acknowledge it when it stands opposed to cherished opinions. Only under compulsion do we adopt that which trenches upon our preconceived notions. But "truth crushed to earth will rise again." Eventually its insistance becomes irresistible and when through the influence of fashion or the exercise of force, it comes into general use or belief, it takes its allotted place in the minds or acts of mankind, with as much ease as though it were "to the manor born."

Mr. Lionel A. Tollemache writes the English Fortnightly Review an article on "The New Cure for Incurables." would seem to be a subject pertinent to the investigations of medical men. So far as we are able to judge, the treatment proposed does not trench upon the ground ostensibly occupied by any of the existing medical schools. It is a proposal to kill off the incurable in order to spare them a useless misery. This proposition might prove startling did we not recall the fact that, a good deal of this sort of work has heretofore been done by medical men, though by no means has it been confined to incurable cases, neither has it had the sanction of law other than custom. It should also remind us that many barbarous nations have long had the practice in vogue; some indeed going so far as to include old persons, which some of them bury in the ground while yet alive. And it is said, these victims or patients rather, go smilingly to their doom.

"Like one who wraps the drapery of his couch About him and lies down to pleasant dreams."

What a test of fillial affection, what a touching evidence of parental regard! A wicked man suggests that, if one could bury his mother-in-law along with his grand parents, there would be no great loss and an incalculable amount of gain. But this "new method" proposes to give its special attention to the neurably sick. Provision is to be made by ample legislation,

for determining the cases to be so treated and then a fatal dose of anesthetic is to be administered. Three points are to be made perfectly secure:

"1st—The incurableness and intense painfulness of the disease must be attested by the surgeon or physician in attendance, and by a medical inspector appointed for this purpose."

Let us think of this proposition a moment. If the doctor in charge were a young man just out of college, it would be useless to expect him to give up the case as incurable. He would be sanguine in the attempt to restore a man that had been hung and quartered. He would stick to his patient hopefully, as the rider of the pale horse is said to cling to a sable son of Africa. He would never consent to entertain the idea that there was such a thing as a case incurable in his hands.

But this is not all; the patient might be "good pay" and so perfectly able to run up a long fat bill for the estate to settle; would it not in such a case, be presuming on human nature to expect the sentence of death to be pronounced against the patient?

And the consulting medical inspector, what an enviable position he would hold! What an excellent private practice he would acquire while holding an office that made him the ally of death! His power to forecast the fate of mortals would cause Old Probabilities to blush at his own insignificance.

"2nd—The patients own earnest desire, (not mere willingness) to be relieved of the burden of life must be sworn to before a magistrate or a functionary appointed for this purpose."

And what if the day after the wish was gratified, the patient should change his mind and conclude he had rather live? Manifestly it would be like discovering the true murderer, after an innocent man had been hung. And, what if under a mere delusion, or while in a delirium of the mind, the oath were made, who then would be responsible for mistakes?

"3rd—The administration of the fatal dose must be done in the presence of proper legal officers or inspectors, and by hands of medical men only."

The chief thing seems to be, to determine the propriety of the act. This might very well be put into the hands of qualified men, say physicians. But when we come to the mere mechanical part of the transaction, why not call in the town hangmen or even a butcher? A constable or police officer might do the deed, and save the resting of such an odium on the medical profession. In the name of that noble profession I protest. To paraphrase a celebrated saying I declare the office is not fit for the nomination. Besides in the common course of professional events, doctors have enough murders to account for now.

With the abstract question of taking life, we need have little to say. Life in general is not half so precious as people suppose. The inferior races have their precious lives beaten, starved, and crushed out of them, with scarcely a sympathetic thought from any one. And human beings have but little better. By the scores they go crashing down in cars, first mutilated and then burned to death. By hundreds they are hurled into the sea to find a watery grave. By thousands they are marshalled upon the battle field, only to be mowed down by canister and grape. Millions have been cruelly slain to maintain an idea, and the idea was worth nothing after all; and that shows you how cheap a thing life is. Twelve men and a judge, with the aid of a few irresponsible lawyers, will manage by a few day's work to get you "hung by the neck until you are dead, and may God have mercy on your soul."

But this sort of thing we are familiar with, but we are not familir with this new method of helping the suffering incurable into a better world—an operation euphemistically called Euthanasia.

And I am not prepared to attempt to forestall public opinion upon the merits of the question, by either opposing or supporting the scheme. I am anxious only that the medical profession shall not through it, obtain an increasingly bad reputation for killing people. But in conclusion, candor compels me to say that I have known very worthy physicians, who after a long and varied experience in medical practice, have confessed that they have deliberately hastened out of the world, intensely suffering and hopeless cases. The usual mode has been by the administration of an over dose of opium, which would certainly give ease from pain and shorten life at least a few hours. This has been done conscientiously, and out of sympathy; and the act is not open to the charge of evil design. I say more, that I

believe there are very few physicians—surgeons especially, who have been called upon to face death in all its horrid forms, who have seen human beings hopelessly sick or fatally injured, and vainly struggling to die and be at rest, and who have not silently taken the responsibility to shorten the victim's life, and are willing to answer to God for the justice and purity of their acts.

And this brings us back to the point with which we started out, so that we are prepared to say that there is nothing new under the sun.

COMMENCEMENT ADDRESS.

BY ISAAC ERRETT.

Let me suggest, in the next place, that in order to the highest dignity and largest usefulness of the medical profession, its members should force themselves outside the materialism that is directly the subject of their investigations, and give due attention to the intellectual and spiritual philosophy that relates to the complex nature of man. Theologians are often and perhaps justly complained of for their dogmatism. But they hold it by no exclusive patent. I have noticed some splendid specimens of the dogmatic in the profession of materialistic scientists. cases it springs from a limited range of investigation. John Stuart Mill, I think it was, who said that if a man gave his whole life to one particular study-say the Greek language-it would as surely dwarf him as if he were to spend his life in making pinheads. There is danger, then, when we limit ourselves to the study of the human body and such material sciences as serve to illustrate it or aid in understanding it; and still more danger when particular organs, such as the eye, the ear, the lungs or the heart, become an absorbing and life-long study. That there is need for these specialties we do not deny. Society is the gainer by the minute accuracy and perfect mastery thus obtained; but the specialists themselves are the losers. It ill becomes the scientist to turn dogmatist. It is not the mood in which he can woo Nature, and win from her the hidden treasures of knowledge. It

is when sitting at her feet, in the spirit of discipleship, hungering and thirsting for truth, that she lifts upon his yearning soul the light of her countenance, unlocks the gates of entrance to her sacred mysteries, and brings out the hidden treasures of truth which only the honest and earnest-hearted are permitted to know. The moment the soul narrows itself into partisan and bigoted devotion to a favorite portion of truth, it is abandoned to its own chosen deformity.

The study of a material organism, and of the laws and operations of material forces, is not favorable to spiritual culture And where there is found that peculiar combination of faculties that leads one to delight in the investigation of phenomena, there is apt to be neither the intellectual fitness nor the disposition to study their relations, and reach from the physical into the regions of abstraction. Hence, from the beginning of philosophical schools in Greece, we have the Ionian or sensational, and the Italian or idealistic; the former of these dividing into the dynamical and mechanical, the latter into the mathematical and metaphysical; and from that day to this, in the world of science, the two classes of mind have been in conflict, sometimes one and sometimes the other predominating. At present, with the wonderful cultivation of physical science, the sensational school are in the ascendant, and their reasonings are marked by bold, and even sublime attempts, to develope a theory of materialism, that shall comprehend the whole universe of mind as well as of mat-The supernatural is to give way before the theories of evolution and spontaneous generation outlined in the Vestiges of Creation, and carried into a completer illustration and vindication by Darwin and his coadjutors; so that no miracle is necessary, not even to create, and no separate empire of mind is allowable, since all thought is the result of molecular action. Then Buckle comes in to overrule all sense of moral obligation, by showing that morals result from organization, climate, situation, etc.; so that given, the country, the climate, and other physical conditions, and it can be mathematically forecast how many instances of murder, robbery, arson, theft, etc., there will be in a city of a given number of inhabitants within a year. We are all thus to be stripped of our spiritual nature, and of our God, and reduced to mere cogs n the wheels of nature, formed and governed by blind material

forces. Then Huxley comes in with his protoplasm, to take the conceit out of us by showing the stuff we are made of, and Tyndall by learned discourse on the molecular forces guides us to the conclusion that "not only the ignobler forms of animalculæ life, not alone the nobler forms of the horse and the lion, not alone the exquisite and wonderful mechanism of the human body, but the human mind itself, emotion, intellect, will, and all their phenomena, were once latent in a fiery cloud." "All our philosophy, all our poetry, all our science, all our art-Plato, Shakespeare, Newton, and Raphael—are potential in the fires of the sun." Then to clinch the whole argument, Dr. Thompson, with Tyndall at his right hand, steps out and challenges religionists to select a ward in hospital, and pray with all their might for the recovery of the patients, while scientists shall take another ward and employ physical agencies without prayer, and see whether prayer or science shall prevail.

I will venture to say that physicians as a class are strongly suspected of leanings towards this materialism. How far it is true I have no means of knowing. I think the range of their investigations might readily incline them that way, and I am quite certain that younger men, filled to overflowing with the more than magical wonders of physical science, if not well trained in the school of faith, and well instructed in metaphysics, will easily be captivated by these reasonings, and enslaved to a spiritless and godless philosophy. There is no time here, even had I the ability, to discuss thoroughly these grave and difficult questions. I propose to offer only a few suggestions, which may serve to show that these theories, however plausible, are by no means satisfactory, and that physicians before they allow themselves to be ensared by the dogmatism of physical science, will do well to enlarge the area of their investigations.

Of Dr. Thompson's proposed prayer test, theologians complain that it is not fair. Were I a physician, I would enter the same complaint. Unauthorized prayers on one hand, and improper medicines on the other, might spoil the whole business. If the orthodox standards of medical treatment are to be recognized, and the patients in the medical ward are to be purged, bled and blistered, according to approved authority, then my humble judgment is that the patients in the praying ward, secure against all

these, trusting to the recuperative forces of nature, observing that cleanliness which belongs to Godliness, and calmly trusting with cheerful faith in the God that hears prayer would, without any miraculous or providential intervention, come out ahead; I would prefer, on scientific ground, to take my chances in that ward.

With all respect for the eminent name associated with that challenge, I beg leave to say that if a third ward were set apart, in which the patient should have the united advantages of the best scientific treatment, and the wisest religious counsel and assistance, combining the physical aids of science with the spiritual aids of religion, it would inevitably bear the palm, and settle the question in the only wise way, that science and religion are not antagonisms but cooperants in blessing and enobling our race.

Of Buckle, I will only say that the strap of his theory is not long enough to be buckled round all the facts in the case. It is a partial and therefore a false theory. It contains much that is true and valuable, but his premises are too narrow for his conclusions. The differences in intellectual and moral development of different peoples, placed for ages in the same country, the same climate, and the same physical surroundings, sometimes side by side, sometimes succeeding each other; and the preservation by others of the natural characteristics through ages of exile from their primitive homes, ander all varieties of physical condition, demonstrate that there are essential factors in the solution of this problem which he has failed to take into account.

But of the most plausible and the most ably argued of these theories—that of evolution, with all the illustrations of protoplasm, natural selection, etc., I wish to say with all emphasis, that whatever it may contain of valuable truth—and I believe it contains much—its tremendous conclusions are unwarranted, and its final aim abortive. Let it be that the evolution theory is true, and that this whole animate universe has been evolved patiently through incalculable ages, by the force of inexorable law, from primordial forms—dismissing all objections to it, and overlooking all its fallacies, I ask, Whence came these primitive forms? You go back to the Monads; but whence came these Monads? Who packed away in these simple and elementary forms of life

all the germs of all the wondrous life that now bursts upon us? By what all mightiness were there condensed into these monads all the possibilities of the infinite variety of life and being, with which the universe now teems? For it must all have dwelt potentially there. This is only pushing miracles back into the remote past, as Edward Beecher sought to account for the origin of evil by arguing the preexistence of souls. It only pushes the difficulty into remoteness; it does not solve or remove it. No one could be asked to stand in the presence of a more stupendous and sublime miracle than the beginning of one monad, into whose rude form and inexpressibly limited capacity should be crowded and packed the germs of a universe of animal and rational life.

Again, admit all that Huxley says of protoplasm-say that you have in that "the physical basis of life," and that all the difference between a sponge, or a tadpole, or a nettle-sting, and a Plato, a Homer, a Cæsar, or a Raphæl, is due to molecular forces and chemical combinations; admit if you will that Mr. Huxley could now avail himself of the treasures of science, so as to make the proper chemical combinations, and draw forth the potentiality of the sun's forces, and realize Gothe's conceit of homunculus produced by the alchemist by crystallization; suppose him out of the same heap of protoplasm to build a serpent, a lion, a monkey, and a man, and start them into life, and send them forthhissing, roaring, grinning, and reasoning, to exhibit the varieties of the action of molecular forces; grant all this, we may, and still the question returns, Where did the first living protoplasm come from? Who gave life to that? For be it remembered that Mr. Huxley's analysis of protoplasm as containing only carbon, hydrogen, oxygen and nitrogen, is that of dead protoplasm, and all his reasonings are based on his analysis of dead protoplasm.

Protoplasm can only come from preexisting protoplasm. Whence, then, came the first living protoplasm? Mr. Huxley, even were he able to do it, was not there to develop it from chemical materialisms, and to draw into it the potentiality of the sun's fire. It had to be done untold ages before a Huxley could be evolved from the first rude forms of existence. Who made it? Whence came the maker? Where is the original fountain of life? Ah! gentlemen, we need to be humble in our pretensions, even amidst the most magnificent triumphs of material science.;

for follow it as far as we may, we come at last to the outer verge of materialism, where the origin of things eludes us and confounds us, and our dogmatism is hushed in the presence of mysteries inscrutable to reason and insolvable by science, and Faith alone, leaning on Revelation, relieves us as with solemn finger pointing heavenward, she repeats the grand article: "In the beginning God created!" At last we take our shoes from our feet, and feel that the ground whereon we are standing is holy ground.

Once more: Is not the conclusion vastly too large for our premises, when we reason that thought, affection, will, and all that distinguishes the spiritual nature of man in no wise differs essentially from a sponge or a tadpole? In the premises we have carbon, nitrogen, oxygen, and hydrogen. In the conclusion we have a spiritual nature that rules and controls all material elements, tames the winds, harnesses the lightnings, subsidizes the stars, compels the sun to disgorge its secrets, makes a pathway of thought through the oceans, and brings every force of material nature bending and worshipping at its feet. Not only so but it reaches out in another direction after the infinite and the eternal, suggests an infinite and eternal Spirit, and invests itself with the high endowments of immortality. Is all this in the premises? If so, we are on the verge of denial of the ancient maxim of the philosophers, that where nothing is, nothing can be produced; for we evolve the whole grand universe, including all high intellectual achievements, the endowments of genius, the boundless aspirations towards the Infinite and Everlasting-we evolve all this from what is next to nothing - from monads; which began to be without anything to give them being, and which started into development one day without anything to start them!

Is it not more rational to educe matter from spirit, or at least the vital forces of matter from spiritual power that antedated them; and to admit that as all the evolutions and gradations of matter to reach up the mineral, vegetable and animal, to the intellectual and spiritual, and find in this last their only worthy interpretation, so they reach out even in the simplest primordial forms to a creative spirit as the only rational solution of their beginning?

It is in view of such considerations as these that we suggest to physicians the need of extending their inquiries into the realms

of the metaphysical and spiritual, and of guarding against the tendencies of dogmatism and insufficient conclusions in physical science. Man himself is a microcosm, linked unmistakably with the lower order of animals, and with the mineral kingdom in his material nature, by the iron in his blood and the lime in his bones; by his instincts and appetites, and by the very mechanism of his frame, he yet ascends to kinship with the Creator in the attributes of a nature which disdains the laws of the material, and even asserts sovereignty over them.

GENERAL CAUSES OF DISEASES.

Address by Dr. Wm. Clendenin before the American Health Association.

INHERITED DISEASES.

To these causes must be added the bad constitutions inherited from parents. There are few biologists who dispute the influence of heredity—not only of ancestral peculiarities, but of diseases also. We have sufficient evidence that such a cause does exist, and that it sooner or later in life manifests itself as a depressing influence, and diminishes the power of resistance to disease, and perverts the life processes.

The physician can do little for the inheritors of scrofula, syphilis, and other hereditary diseases, and yet it should be understood that even those thus diseased may outgrow their inherited vices of constitution. Yet, in the language of Maudsley, "Here, as elsewhere in nature, like produces like: and the parent who makes himself a temporary lunatic or idiot by his degrading vice propagates his kind in procreation, and entails on his children the curse of the most hopeless fate."

DOES CIVILIZATION INCREASE THE NUMBER OF DISEASES.

There is a popular opinion, nor confined to the ignorant alone, that as mankind has advanced in a material and intellectual point of view the number of diseases has increased; that many diseases are the necessary accompaniments of mental development, of arts, and industry; and that the higher education of youth produces effeminacy, debility, and disease-

Such a view is incorrect, because every onward step in the path of knowledge and true refinement has had a beneficial influence. The sanitary condition of communities improves, pari passu, with the education and intelligence of the people composing it. There are, however, some serious errors connected with and growing out of the manner in which we seek to accomplish the grand purpose of civilization. The principles and plans adopted in most of our schools and colleges is at direct variance with those rules of being and of doing which fulfil all that is needful to bodily health and mental vigor. A uniform standard is adopted by teachers which is usually so high that it is adapted only to the ablest minds, and it has to be attained by the less gifted by undue mental effort. Children are generally classified in schools according to their ages or acquirements at the time of their admission, regardless of their mental capacity or physical state. All the children composing a class are supposed to possess the same vigor and quality of mind, equal powers of application, endurance, and adaptability. Consequently, the powers of the mind of some of the pupils are likely to be overtasked by the constant and severe effort required to keep pace with the curriculum of studies in their classes. From this cause. the brain and nervous system become at first morbidly excitable, but subsequently, if not relieved by rest and relaxation from study, the memory is weakened, and the power of thought and concentration of the mind proportionately diminished. The physical organs promptly sympathizes with, and are speedily brought under the influence of this depressed nervo-mental state, especially when, as is too often the case, large numbers of children are in attendance and kept for so many hours daily in an improperly heated and badly ventilated school building. Both the body and the mind are in this manner very often permanently enfeebled, and nutrition so greatly impaired that growth and development are retarded, perverted, or it may be permanently arrested, and the child is thus doomed to a life of suffering, and perhaps to premature death.

ARE CHANGES IN LIFE DANGEROUS?

The physiological changes which are effected at the period

of puberity, and which result in the perfection of the highest physical power of animal life—the power of reproduction, characterized by the awakening of new passions, feelings, and associations—has always been considered as particularly dangerous to life, or as rendering the individual especially susceptible to disease. There is much that, on a hasty survey, seems to countenance such an opinion; a more careful examination of the question shows, however, the incorrectness of such conclusions. The influences brought to bear, and the new conditions developed, are apparently different in character and effects, but they operate in a similar manner, and produce the same results as those causes to which reference has already been made, in the causation of child-dren's diseases.

CHILDBIRTH.

The proper recurrence of those phenomena associated with ovulation is regarded as evidence of health and vigor of constitution; but if these phenomena be not observed, and the health subsequently becomes impaired, their non-appearance is considered as the cause. The preponderance of females over males in the death list (in the census tables) is assigned by physicians to causes having their origin in derangement in the catamenia; while on the other hand, those causes which derange or delay the catamenia are likely to be overlooked or wholly disregarded. The whole of the child bearing period is almost universally regarded as peculiarly hazardous to life, and yet we have the authority of Dr. Farr to the point that the "child bearing women of a population are, in the language of the insurance officers, 'select lives.'" And Dr. Brinton, another equally high authority, states that, "Apart from a few exceptions, we are bound to remember that all the perils decreed to the female leave her life, as a whole, rather superior to that of the male of corresponding age; in other words, that the pain and danger of childbirth do not bring about an excess of mortality at all approaching that which results from the greater exposure, toil, and intemperance of the stronger sex." These statements are fully corroborated by the experience of several life insurance companies of this country. According to the last census, after the thirty-fifth year the death rate of the sexes is in favor of females; and from fifty-five to sixty nearly one third less women died than men.

CONSUMPTION AMONG WOMEN.

It seems impossible for physicians to divest themselves of the idea that derangements of menstruation do not cause disease. The fact that consumption is always more fatal among females than males, between the ages of fifteen and thirty years, is again and again brought forward as evidence of the evil effects of deranged catamenia. But those who adduce facts in support of this opinion forget that the requirements of society, so-often opposed to reason, and the omnipotent behests of custom and fashion are most fully recognized and courted during this period. The consequences of ovulation are excessively annoying to fashionable women, as it so often interferes with their social pleasures and fashionable amuse-To obviate this annoyance, recourse is often had to ablutions of cold water upon the excited organs; the consequence is that the flow from the surcharged uterus is immediately arrested by the contraction of the vessels. The same result is oftener unintentionally obtained by the unseasonable change of clothing, or improper and insufficient clothing, thin or light shoes. From these causes, so common and so constant, result many of those diseases which are so prejudicial to female health, and which so often end in consumption.

The local evils which so certainly result from the causes cited are multiform and intricate, as every physician knows and, grave as they may be, they do not end with the individuals, for it has a moral as well as a physical bearing upon the community. Hematocele, for example, one of the local effects of the sudden arrest of the catamenial flow, may be followed by, or result in, adhesions between the intra-pelvic organs and other organs of the abdomen, or its muscular walls, producing flexion of the uterus, and narrowing or obliteration of its canal, and thus becoming a cause of disease of the uterine functions, preventing conception, or if impregnation should take place, the uterus being bound down by

the adhesions referred to, its power of expansion is limited and hence the term of utero-gestation could not be completed, and therefore repeated miscarriages would ensue.

But the most common cause of the excessive death rate among females during the period of greatest activity of the reproductive organs is comprehended in the fact that the greater part of a woman's life is spent in the house or in its immediate surroundings, and hence we look to the condition of the dwelling for the explanation. Thus the mother is subiected to the same conditions—to the same morbific influences—that are mainly instrumental in causing the excessive death rate among young children, vis.: a deteriorated atmosphere, and hemmed in, perhaps, by barriers of filth and want, coupled often with the evils of intemperance. The far-reaching ill effects of these causes fall with immense proportion upon females, and especially upon the poor, the ignorant, and the subordinate. It generally, indeed almost always, falls to the lot of woman to administer to the wants of the sick, and, therefore, she is subjected to the inmediate effects of the poisonous exhalations thrown off from the skin and lungs of the diseased; so that when disease is generated in, or imported into, tho dwellings of the poor, it causes neglect of cleanliness, and, therefore, the effects are most likely to manifest themselves in the little children and females, the helplessness of the one and the necessities of the other making it impossible for either to escape.

The same conditions produce the same result in males. The report of the Registrar-Generals of England show very conclusively the influence of occupation upon general heal... and longevity—the death of farmers at the age of 35 to 45 was nine in a thousand, of bakers, fifteen, and of butchers, seventeen. The great mortality among butchers is probably due to the effect of the elements of decaying matter by which they are surrounded in the slaughter house and vicinity. Mr Lombard exhibits trades in relation to consumption. In 1,000 deaths in each of the different occupations noticed, the following proportions were furnished by this disease:

With vegetable and mineral emanations	176
With various dusts	145



With sedentary life	140
With hot and dry air	138
With workshop life	127
With stooping posture	122
With sudden movement of arms	116
With muscular exercise and active life	89
With exercise of the voice	75
Living in the open air	

And it may be further stated, that the better the condition of life the less liability to consumption. Marc d'Espine has proved that tuberculosis occasions 68 deaths per thousand among the rich and 233 per thousand among the poor.

Theory and Brackice.

CASES FROM PRACTICE.

CASE I. Puerperal Convulsions—Blood-letting—Aconite Tincture on Scalp-Recovery. Mrs. A., primipara, at 25; nervo-sanguine temperament. Had never seen the patient until called to attend her in labor. Found her in the morning setting up and suffering from excessively keen preparatory pains, with some nervous excitement. Coffeas was administered, which not only quieted the pains promptly, but seemed to relieve her of all pain until 3 P. M. I was then informed that she had pains again, and that she was troubled with flashes of light before the eyes. She was seen promptly, and the labor pains were found to be reguular and sufficient. Her face was flushed, and the pulse was strong and somewhat quick. Belladonna³ in water was administered at intervals; the labor progressed favorably until the head had reached the perinæum, when a violent convulsion occurred. This threw the family into great alarm, and the husband hastened for two allopathic doctors-father and son-who soon made their appearance. In the meantime the child was born, and the placenta removed during short intervals between three more quickly succeeding convulsions. The allopaths thought blood-letting advisable, and the family wishing that it should be tried, the doctors drew a half-basin full of blood. Still the convulsions occurred regularly; and after a second bleeding they were as violent as before. The patient's brain was becoming more and more congested, the face was livid, the breathing was heavy, and there was no return of consciousness between the paroxysms. No medicine was given during this period. After two hours the allopaths went away, saying the woman must die. The family appealed to me now for help. I took from my pocket a vial containing tincture of aconite root, and parting her hair in various places, dropped over the scalp about 25 drops of the tincture. No other convulsion followed. The natural color of the face—paler from blood-letting, soon returned, and consciousness was re-established. The woman did not die; but during the succeeding two weeks she was about as troublesome a case of puerperal insanity as could well be. four weeks she was about the house.

This case occurred eighteen years ago, and brief notices were made of it at the time. It is not published here as a case of model treatment so far as I was concerned. The apparently happy effect of aconite applied to the scalp impressed me at the time. If she had had aconite internally before the convulsions appeared they might possibly have been averted. Chloroform was not one of the ready resources for puerperal convulsions at that time, which it has since become, not in this locality, at least.

CASE II. Wind from the Bladder—Sarsaparilla—A Question.—A sickly looking child—a girl—3 years old, was brought to my office from the country in the summer of 1872. The child had been in bad health several weeks. The symptoms of the urinary organs were most conspicuous. Two prescriptions had been given by me without any good result. The mother, an intelligent lady, finally stated that she was confident that every time the child urinated, wind came with a noise from the bladder. This symptom which I had never met with in practice before, at once directed my attention to sarsaparilla. (See Hering's new edition of the Materia Medica.) The other urinary symptoms corresponding with considerable accuracy, sarsaparilla²⁰, one dose, was administered, and in a few days the

case was, in all respects, very much improved. The symptom mentioned permanently disappeared.

In the hurry of office practice no complete memoranda was kept of this case. If the case had been studied with sufficient care, at first, it is not improbable that sarsaparilla would have been selected, without reference to the symptom mentioned; but, the question which here arises is, whether the "busy practitioner" would be benefited by the weeding out of this symptom from a new materia medica. I have only found it in Dr. Hering's publication, and it seems to have been a contribution from Dr. Okie's observations.

Hamilton Ring.

HERING ON TYPHOID.

An operatic score is doubtless good for something, It would delight the eye of a skillful musician. He would see in it beauty and worth not visible to our uninstructed sight. The score of a simple song we might possibly read and in an indifferent way might sing it. But being unlearned in the mysteries of the higher sorts of the music we could neither read nor perform those masterly productions that delight the ear of the music-loving public.

In the same way we might grasp the subject of Typhoid Fever as recorded in Marcy and Hunt or Bæhr or Raue. Still more easily could we comprehend the subject as set fort in our domestic treatises. But when we unfold the monograph of Dr. Hering on that same subject we are simply nonplussed—we feel we lack a certain capacity. Our feeble minds cannot do justice to the subject because we cannot stand upon the needed and necessary vantage ground of a peculiar natural ability and preparatory education. Like the higher rays of the spectrum much of it fails to impress our retinal structures.

But if we do not understand opera we know there are those who do, and if analytical therapeutics is not comprehensible to us, we must rest satisfied in the faith that there are many in the profession, to whom such seeming mysteries are clear as noonday. For our part we have studied these things only in a concrete way, we have viewed medical subjects synthetically—or at

least we suppose so, else the "analytical" method would not so confound us.

Nothing but our supreme belief in the development theory both as a fact of the past, and as a certain outcome of the future. would reconcile us to this remarkable pass we have reached in Therapeutics. There are those who will look upon this work as a lusus naturæ while in fact it is only a part of the grand differentiating powers by which we and our successors, are developing into new forms of thought and new states of knowledge. Being then in this frame of mind there is no good reason we should put on our critic cap and attempt the work of reviewing a production we do not understand. Says the Preface: "This number is a specimen of the book which will be published without delay if the profession desires it. The first part of the work will contain full advice, how the book is to be nsed." Very likely we have here the clue to the to all our difficulty. We lack the key and cannot therefore open the door. But then an organ locked or unlocked would be all the same to our bungling fingers. Still as we have profound confidence in Prof. Hering's wisdom and ability, we hope the profession will make a practical demand for the early completion of the entire work.

THE "ACCOMPLISHMENTS" OF THE PHYSICIAN.

In the practice of medicine it were well if the great mass of stout hearted, independent physicians, who are reliant upon their practical experience, and their medicine chest, had a few of those accomplishments, which would not only adorn their natures, but assist in curing their patients. We do not refer to any esthetic acquirements, the art of baby pleasing, or even that happy attribute of an eclectic brother—the facility of kissing his patients!* But we refer to a better knowledge of the facilities for cure placed in their hands by science, and not empiricism.

It is necessary for the rotund health of the pumpkin, and the flush green of the potato vine that sunlight strike them squarely in the face. It is necessary when the photographer takes an image and prints it that not only sunlight should be present, but

*See Eclectic Med. Jour., May, '73.

with it a certain obscure chemical principle called "actinism." It is necessary in order to produce certain chemical and vital reactions that light should be present. The analysis and study of light tell us that certain colors conduce to certain results. Now these and similiar medico-philosophical principles should be nicely packed away in the cerebrum, and uncorked every time the medicine chest is opened. The "sun cure" is not a myth.

This reminds us of a curious attempt once made to cure consumption. While wandering through the twenty or thirty miles of avenue in Mammoth Cave, we came across a number of stone cottages built in the great cavern. The guide informed us that some "doctor men" once thought that the never changing temperature of the cave, and its atmosphere absolutely free from dust, would cure consumption. So the cottages were built and the patients introduced, and shortly after went out to die! It was a hygienic lesson.

Go take down the philosophy you haven't dusted for years, or buy a modern one, and let science have a chance to wrestle with your hobbies. Perhaps you will conclude that absolutely pure air, and pure water, and easily digested victuals, etc., are not what a true hygiene calls for! Perhaps a just attention to the accomplishments of a physician's education will make him more practical and more successful. If he properly appreciates the help modern science will give him, he will never let ignorant days grow upon him again. We want this put in the Dep't. of Theory and Practice.

A most encouraging feature of modern medical practice, (and we mean extremely modern), is the recognition of the difference between empirical success in certain prescriptions, and positive knowledge of the cause and effect which would lead us to repeat the same. What ages of "experience" have been thrown to the winds!—a hateful but truthful statement. The world has awakened to the wonderful virtues of a remedy, and then quietly let it alone. Let medicine rest upon experience only, and it is rotten. Empiricism tells what it cures—buries what it kills!

Phskekrieal.

CASE.

Miscarriage-Placenta Previa-Shoulder Presentation.

Mrs. H—— æt. 32, of slender form, delicate constitution, fifth pregnacy, fifth month. Previously had one miscarriage at third month. On Dec. 24 danced excessively; a week after while at household duties fell suddenly on the floor.

She described the sensation as if she had received a blow or sudden shock. When she recovered, she complained of pains in the left side of the chest about the region of the breast; and a pushing upward toward the neck, (this lady has hypertrophy with dilatation of left side of the heart) with trembling in the region of the gravid uterus; after this time no motion of the child was felt.

On the 12th of January following, I was called to see her in haste. Found her in great agony; pains indicating a speedy miscarriage; a considerable flow of blood made its appearance about two hours before my visit. Her face was flushed, and pulse 120 beats per minute; attended with thirst and soreness all over the abdomen. Gave aconite and sabina³ in alternation every half hour; and directed that the feet and ankles be bathed in cool water once in two hours, and would call again after four or five hours; but did not reach my patient until 9 P. M., seven hours afterward, when I found that the pulse had fallen to about The hemorrhage had ceased. The pains were less frequent, and of shorter duration; and were of a less cutting and pressing character, and were of a more drawing nature. I was then informed that she felt no motion of the child since the day of her fall, January 1st. She was then advised that the fœtus was dead, and would pass off shortly.

On the 17th of February, at 7 o'clock P. M., her husband called to request that I would call, and see Mrs. H———, as she was now beginning to flow quite freely, and had pains the same as she had before.

I went at once, and found that a large discharge of water had taken place very suddenly; and, was followed by a constant flow of fresh blood; and learned that a slight bloody discharge had been passing for two or three days previous to this time. But as she had advised that such an occurrence was probable in course of time, she was not disturbed by it, until the discharge of the water followed by blood, which she did not seem to understand.

The mouth of the womb was found dilated and soft, with a small fleshy mass protruding, which was recognized as a portion of the placenta. To the left and front of it the finger could pass quite freely; but to the right and back could only be passed by tearing it loose from the wall of the uterus. Every attempt to detach it was followed by a gush of blood; when once completely detached a single pain caused it to descend followed by the cord, and right elbow. The index finger was then hooked over the forearm, and the hand brought down; after this the contractions became so firm as to forbid further operation. But it had the good effect to arrest the hemorrhage. In this condition she was allowed to rest a few hours, when the os was gradually dilated. and an attempt made to change the position of the fœtus, so as to favor delivery, this however proved a failure, and it was finally determined to remove it by sections, which was successfully accomplished; and Mrs. H---- made a speedy and good recovery.

There is no doubt that this fœtus had been dead since about January first, and remained in the uterus afterward forty-eight days; and that its expulsion was delayed partly by the near position of its body, and probably in part by the position of the placenta.

O.

The question of using Chloroform in labor will receive some special attention in the future pages of this journal. Meantime we would be pleased to receive the views of our readers on the question, and the result of their experience.

Chemistry and Pharmacy.

ON SOLUBILITIES.

In our first article we referred to the fact that a solution, in physics, was regarded as an exhibition of adhesive attraction between the molecules of two substances greater than the cohesive force between the molecules of the dissolved substance, and took grounds against the theory.

In the second article we referred to the different static densities of the same substance, and the resulting approximation or vast separation of the atoms of molecules. Also stated the general principle that two atoms never touch each other in matter. Also that it is impossible to tell the exact amount of the pressure of the attraction of gravitation, and that all space is perhaps filled with a mobile, elastic, rare ether.

In the June number we endeavored to show that there were no repulsive forces in nature modifying the densities of substances, or tending to rarefy a gas. That there was resistance to compressibility in certain natural, static conditions. Also that it was unreasonable to suppose that so universal a law as Attraction of Gravitation should have no effect on mingled gases, or should become "latent," as generally accepted in the "Law of the Diffusion of Gases."

Solvency is the mysterious disappearance of one substance within another, with or without an increase in the bulk of the solvent. Let us ask the staid philosopher of the 18th century, were it possible, if solution does not mean the occupation of the same space at the same time by two different kinds of matter, frequently closely allied in density and molecular composition? In considering the physical condition of a solution have we looked the matter square in the face, and considered its relations just exactly as they are?

The condition of solution exists in nature with far greater frequency than ordinarily supposed, and we may be mistaken in some of our illustrations. There are solutions of solids in liquids, with permanency of bulk in the solvent, as sugar in water. There are solutions, or partial solutions of liquids in liquids, with no increase or only partial increase in bulk, as with alcohol and water, which does not constitute a simple mixture. There may be solution of a gas in gas, without duplicating bulk, or with only a partial increase of bulk, as in the "Diffusion of Gases." There may be a solution of a liquid in a solid, without a change of bulk in the solvent. A familiar illustration of this is in the instance of "amalgamation" of Zinc with Mercury. But an instance far more important to physics, we claim in

the strange form of a fluid known as "water of crystallization."

Of course a writer in a field so little occupied as "Solubilities," and one who advances ideas entirely different from any heretofore expressed, should do so cautiously, and not with dogmatic certainty. Hence we put some of the propositions in the above paragraph more in the shape of questions—as propositions open for discussion, and by no means settled.

THE ATOM.

To throw light upon the subject, let us go back over the ground of a previous article, and look at matter in its ultimate condition. Except in the minds of a few transcendentalists, who regard matter and force one and the same thing, and the former but the condensation or intensification of the latter, all matter is thought to consist of atoms. These atoms make the universe. There is no other substance. There are as many different kinds of atoms as there are elemental kinds of matter. The atoms vary in size* They never touch, even in the densest of substances. They have powerful polarities. Powerful, because they are so utterly beyond our comprehension in littleness that any exhibition of force is "powerful." These polarities are not only exhibited in magnetism, but in crystallization and in chemical union. The word polarity signifying merely a direction of at traction. Atoms must be so infinitely small that their interspaces, even in dense substances must be relatively very large; because compression may be continued ad infinitum, as our means of abstracting heat increase. The atom can not alter its shape, densities, or polarities. It may revolve, but not change its constitution, for it is an entity, and has no "composition."

THE ATTRACTION OF ATOMS.

We have no reason for believing that the attraction of adhesion exercises any atomical influences. That is—the atom of one substance does not attract the atom of another, but adhesion is a mass attraction. If it be objected that a mass attraction must be analyzed into an atomic attraction, we say, No. There are peculiar variations in the attractive forces, which lead us to think that the relation of the size of the atom of the adhering sub-

*This variation is generally thought to be in multiples, or in certain ratios—as 1 to 2, 1 to 4, 1 to 6, etc.; or 2 to 3, 2 to 6, etc. But there are no real reasons for supposing so, for there are many deviations,

stance to the interatomic spaces of the other, very considerably modifies adhesion, and we may soon attempt to show that adhesion is but an effort of atoms to enter the interstices of other atoms, or in other words, an attempt at solution. Are we not aware that small particles of every dense material will float in the atmosphere; that large quantities of the same density, even when spread out for atmospheric support, will sink; that a single ounce of lead will fall from the Tower of Pisa as soon as a hundred pounds? Then what sustains the small particle? Is again attraction of gravitation laid aside, as supposed in Gaseous Diffusion? No. It may be possible that microscopic dust approaches in size that relatively large space between the atoms of a rare atmosphere, and that there is a universal tendency to "solution," of which we shall soon speak; that is—a natural antagonism to a vacuum.

The universal attraction of gravitation has indeed a very little influence upon the atom. To be sure, in the mass, it is often considerable, but never is it as strong as that interatomic attraction called *chemism*, which unites atoms into appreciable matter. Its want of intensity is made up by universality, and by its acting at all distances* This attraction of gravitation has a powerful control over vaccui, through the media of liquids and gases, as stated before.

The attraction of cohesion is a variable attraction, sometimes strong, at other times weak. In the oxydation of iron, chemism is stronger than cohesion. In the application of reagents to salts which will not react without previous solution, cohesion is the stronger.

A FEW GENERAL IDEAS.

A solution overcomes attraction of gravitation—a pint of water will sustain over two pounds of sugar.

A solution overcomes cohesion, solid and dense crystals and colloid substances giving way. But frequently structure does not give way, as in amalgamation, or in water of crystalization.

If there are universal spaces between atoms, smallest in solids,



^{*}We have no right to say "all distances," for while attraction of gravitation extends outward illimitably from every center of every unit of matter, still there is a circle or a sphere or an atmosphere of "forces" or chemical influences where it is powerless—and that is the space around every atom, large or small, in proportion to density.

larger in liquids, greatest in gases, as far asour knowledge reaches are not those spaces vaccui?

If they are vaccuous, absolutely, then would there not be a universal tendency in all matter whose atoms are sufficiently small, and whose cohesive attraction is sufficiently weak, to rush into the sucking vortices, and relieve nature of an universal pressure?

In case of an affirmative answer, gases rush into the vast interstices of each other, and the law of "Diffusion" is laid aside. Liquids dissolve solids by reason of their cohesive powers being less than the vacuum pressure, and their atoms being (naturally enough) smaller than the interstices of a liquid. When the interstices are filled, the substance dissolves no longer. Fluid mercury enters quicksilver purely because its atoms are smaller. Water enters into the composition of crystals because (besides the slightly ascertained relations of heat, which corroborate) the interstices require it—without which it could not withstand the same "pressure against a vaccuum," and which pressure the water atoms satisfy. Even silica floats in water and atmosphere; oxygen in water; water in air—rising in the coldest temperatures.

These views are advanced to provoke investigation. There are discussions of other questions which sequel this, and we want some verdict from physicists. There are a multitude of negative answers to the last question above, but they will be considered in next issue: Why does ice expand by application of cold? Why do not solids, which are so dense, rush up into the interatomic spaces of gases? Why is the volume of two liquids in solution, or two gases, greater than the volume of the solvent or menstruum, etc., etc.?

E. W. Fish.

Will some one who knows tell us all about the tincture? Is age of advantage or detriment? Is "muddiness" a great discredit? Should pure tinctures be dark-colored? What are "German" tinctures?"

THAT AQUARIUM PROBLEM.

It seems that all science has not been elaborated by the wise men. Next month we will give some notes in response to the aquarium problem of May.

Physiology, Microscopy, Etc.

PATHOLOGY—PHYSICAL AND PSYCHOLOGICAL.

In our pathological observations we find there are various conditions of the nervous system attended with an uncommon, and very great degree of irascibility. This is found to be preeminently the case where the complication arises from an unhealty state of the liver. Under these circumstances the temper often becomes peevish, suspicious, gloomy, and morose. So great is the influence on the mind of an excessive secretion of bile by the liver that the ancients were accustomed to attribute a large share of the moral obliquities of men to this cause alone.

The inflamed appearance of the face when under the influence of anger, wrath, or the irritation of passion, was supposed by them to be produced by a superabundance of this fluid.

Hence, came the expressive epithet choleric, which signifies passionate, being derived from the Greek word Chole, meaning bile. And hence also comes it, that the term gall, or bile, has long been used synonymously with anger, malignity, or bitterness. of temper. We often find in morbid affections of the stomach. the patient becomes exceedingly irritable, venting his spleen. upon everything, and upon everybody about him; and an inflammation of this organ will not unfrequently induce violent fits of passion. It is doubtless the morbid excitement which they awaken in the mucous or inner gastric coat of the stomach, that stimulating food and drinks will, in some constitutions, always enkindle an irascible state of feeling. In certain individuals the liberal use of wine or spirits is uniformly followed by fearful outbreaks of anger, and an exhibition of malevolence—"Audax omnia perpeti, ruet per vetitum nefas*" The unhappy state of temper under which most persons awake on the morning following a night of debauch, is, most probably, owing to the morbid and irritable condition left in, and the depraved secretions acting

^{*}Daring to every extent of guilt, and rushes to perpetuate every thing that is wicked and forbidden.-Homer.

upon the delicate lining of the stomach; a part than which few, if any, in the whole animal economy, have closer sympathies with our moral nature. Hence may be derived an additional argument in favor of temperance, both in eating and in drinking.

This morbid and unnaturably irritable condition of the mucous coat of the stomach may, and often times does, transmit such an influence to the mind, as to deaden all its susceptibilities of enjoyment, and oppress it with the heavest despondency, often sinking to despair.

Now as this unhealthy condition of the inner surface of the stomach is the legitimate result of an habitual indulgence in some agent that produces excitement or inebriation, the danger of a recourse to it with a view to elevate the dejected spirits, or drown the unhappiness of the mind, will very readily be understood.

If the mental depression arises from a physical cause, such injudicious stimulation will be sure to augment it, and if from a moral, a physical one will thus be speedily added to it; by which the doomed victim will be constantly attended; a real fiend, more dogged, persistent, and insatiable, than the fabled relentless Doppelganger. Indeed there is no mental suffering, no moral gloom more oppressive, deep, and terrible, than that induced by this physical change in the stomach of the habitually intemperate, and indured by him when not under his accustomed stimulus; whether of distilled spirits, wine, or opium.

In delirium tremens, a disease peculiar to the intemperate, where we find a striking pathological change both in the muscular and villous coats of the stomach, a reflex action through the sympathethic nerves upon the brain, always fills the mind in its lightest forms with the most grotesque and dismal ideas. Scenes never to be forgotten are often witnessed by the physician while in attendance on cases of this nature. From my note book I take one illustration, that from its dramatic character impressed my mind as a striking illustration of the horrors of Dante's Inferno.

My patient was a business man, about thirty-five years of age, living at a prominent hotel. Being called to see him, on entering his room, I found him sitting on the side of his bed, looking worn and haggard. From his attendant I learned the patient

had passed the last three days and nights without rest or a particle of sleep. His nervous system was in a wild state of disorder, and both mind and body seemed entirely filled with the frenzy of his awful fancies. In order, if possible, to procure sleep, I gave him the following prescription:

Re Camphor gr. j.
Sulph. Ether gtt. v.
Infusion of hops 3. jss;

To be taken at a draught. This, an empirical remedy, had often proved successful in my hand, when all other means had failed me. This was in Allopathic days.

At first the patient seemed calmed by the anodyne, but suddenly he was again writhing in the clutch of another fearful halucination. In just twenty minutes he was to die, and Satan stood looking in at the window waiting for his soul! I have seen many instances of human wretchedness, and woe, but nothing to compare in mortal agony to this. Great beads of sweat rolled from his face, and every line of his countenance was stamped with an expression of horror. His vivid sense of being in the presence of the Arch Enemy, and his screams for help and pleadings for mercy were terrible to witness.

To him it was as it were a reality! To me, as though I was beholding the sufferings of the damned!

The patient recovered, but his fearful experience failed to correct his habits of inebriation.

C. C. Bronson.

LIFE FORCES.

The physician is concerned with the structure and functions of the body, hence anatomy and physiology are to him fundamental. Whatever may be our theory of the nature of disease, whatever our mode of practice, we must understand healthy structure and normal function, in order to be able to recognize any departure thereform. But if a knowledge of anatomy and physiology is essential and fundamental to the physician, a knowledge of elementary substances, and forces, together with their relations, combinations, or correlations, is essential and fundamental to a thorough knowledge of anatomy and physiology.

The basis of the science of medicine is thus laid in physical science, and its investigation begin with matter and force.

Man's body is composed of matter, and he manifests certain functions or forces, but the structure of his body is exceedingly complex, and the forces of life appear mysterious and inscrutible. If we attempt to investigate organic structure and functions without a knowledge of the properties and relations of matter and force in general, we can hardly expect to arrive at correct conclusions concerning them. If we fail to comprehend the simple, we shall certainly misinterpret the complex. If an mal tissue is essentially unlike any other substance in nature, and if the forces manifest in, or by an organism, are essentially different from all other forces—if ordinary matter is not converted into living tissue, and physical force is never correlated into so called vital force, then animal tissues and vital forces must arise sui generis, that is, must ereate themselves out of nothing, which is an absurdity. The highest organism cannot be conceived as generating force enough to move a grain of sand, and we must all eat or die of starvation, If, on the other hand, inorganic matter is converted into organic, and physical into vital force, it becomes a fundamental proposition to the physiologist to inquire how and under what circumstances such transformation takes place.

In former articles in the ADVANCE we have considered briefly and in a general manner the substance of organisms; in this we propose to examine to some extent the forces manifested by organisms. But though we consider them thus apart, matter and force are nevertheless inseparable. No matter without force; no force without matter.

Take any elementary substance, oxygen, for example: It has certain characteristics, certain attractions or affinities for other substances, and forms with them certain combinations. Take another substance, hydrogen, which has also its attractions, affinities or peculiarities, uniting the two in definite proportions we have water (H₂O) a substance differing from either of its elements, yet expressing the sum of the characters of both. No new entity like "liquidity" is deemed essential to such a combination. Water, again, exists in several different forms, as steam, vapor, ice, etc., according to the amount of heat contained, but

heat being a special mode of motion, these variable conditions of water express only different degrees, or relative velocities of molecular motion.

Starting with a definite quantity of water we cannot conceive the amount as increasing without the addition of other equivalents of oxygen and hydrogen in the same proportion, in other words, there must be a supply of the elements to increase the compound. Moreover the properties of water are fixed within certain limits, and any force which it manifests bears a direct ratio to quantity and condition.

Supplied with two other binary compounds, viz: carbonic acid (CO2) and ammonia (NH3) plants grow and multiply their substance many fold. Yet plants generate neither matter nor force, the substance of plants represent the combination of certain proportions of OHN and C, uniting first in definite proportions to form binary compounds, and these binary compounds uniting in certain proportions to form the substance ofplants, and while each individual element manifests different characteristies according to its different relations, the sum of manifestations is the sum of these individual characteristics. Certain plants furnish all the food necessary for the nutrition of man, substances which have arisen from a redistribution of matter, and from the formation of the first binary compound to the time when food is prepared for nutrition, these combinations have increased in complexity, and latent force has been converted into active energy. At every step during the elevation of matter to a higher level, has the force manifested—first, by the element given place to the force manifest by the binary compounds; second, the force manifest by binary compounds has given place to the force of plants ("vital"), and lastly the so-called vital energy of plants is converted into the vital energies of man. Different forces are manifest as different arrangements or combinations arise. If we call any force manifested by an element the "property" of the element, so we call the force manifested by a compound the property of the compound, and with equal propriety may we call the force of an organism the properties of the matter of which it is composed.

So far as form and substance are concerned we have in organization a rearrangement, recombination, redistribution of matter. We may conceive the atoms of a certain volume of an element

capable of a kind of geometrical* arrangement, (eg.: the six different forms of phosphorus.)

Binary compounds may assume also a great variety of forms, (e. g.: the different forms of water); and we have already noticed the exceedingly complex structure of albumen, and the modifications that may arise of its nine hundred atoms. Now the atom and the binary and quarternary compounds manifest different forces; and if the compounds arise from a redistribution of matter, these different forces also arise from a redistribution of motion, force being regarded as a mode of motion. change of force corresponding to change in matter,) and any special force as a special mode of motion. Perhaps it would be well at this point to remark that of the essential nature of either matter or force, we are ignorant; we know only the relations of certain elementary substances by comparison with other elementary substance,s and differences of relations we call proper-So with regard to force, we know only its relations, and not its essential nature, and since the indestructibility of all forces, and the convertibility of one force into another has been demonstrated, a common basis has been provided by conceiving all forces as simply modes of motion.

The more complex the structure of any substance the wider the relations it will assume, or the properties it will manifest, and the peculiar modes of molecular motion, and the different degrees of intensity of that motion, will consequently be greater in complex substance than in simple. It follows therefore that as organized bodies differ from non-organized, by virtue of different combinations or redistributions of matter, so vital forces differ from physical forces by virtue of redistributions of molecular motion, and as organized bodies contain no matter which

all organic substances, is evident. The composition of each of these substances is identical, both as to constituents and the quantity of each. This peculiar property of matter is supposed to be due to a different arrangement of the atoms as represented in the annexed cut.



⁺Page 229, Advance.

^{*}The condition of "Allotropism," in the composition of woody fibre, starch, and gum,

is essentially peculiar to them, so they manifest no force of an esssentially peculiar kind, but as the matter of life has been derived from the inorganic world, to be finally returned thereto. so the forces of life have a like origin, and a like final destination. As the organism is continually giving back to the inorganic world the matter which it has received therefrom, so the forces which have accompanied this matter, and which have been correlated from lower to higher forms, as matter has been organized and differentiated from lower to higher forms, is finally expressed again in physical force, and at the death or dissolution of the body, the final account with nature is balanced. Be it observed, that it is not claimed that there is no difference between the "flesh of man," and the "flesh of beasts," or between a binary compound and organic tissue. It is not claimed that there is no difference between the direct heat of the sun and animal heat, or between physical and vital force, but the difference is recognized as one of degree and not of kind, for in the light of modern science were the difference absolute—an essential difference in kind, life would be an impossible conception, just as all knowledge of life would be impossible to finite minds, if knowledge was in its nature absolute instead of relative. J. D. Buck.

HEREDITY.

The subject of heredity, just now attracting considerable attention, is well illustrated in one of its features by the following item, from Mrs. Dr. Cutler.

The grandfather, one of the early settlers, used to go down to New Orleans with rafts of lumber. He was a very strong man and never spared his strength. On some occasions he lifted so that he forced blood out of his ears, and after that, he began to lose his hearing. None of the children born before this, nor their descendents had any tendency to deafness, but those born after, had most of them an early tendency to lose the hearing in one ear and sometimes partially that of the other. This tendency is more or less manifest in the grandchildren. The young lady mentioned, showed no signs of deafness till after a severe attack of diphtheria, since which time she has been gradually losing the hearing of one ear, the submaxillary glands being very susceptible to enlargement from the slightest exposure.

Yours truly.

H. M. T. CUTLER.

Materia Mediea.

MATERIA MEDICA.

The simple meaning of the term is medicinal matter, and medicinal means of healing; and thus the science of materia medica is the knowledge of whatsoever tends to heal the body, or improve the physical health. And since the lower mindthat which pertains to the senses—cannot well be separated from things which pertain to the body, that must also be included. Those, furthermore, who recognize nothing in the human mind which rises above the testimony of the senses, can really possess no healing or reformatory philosophy, or theology, beyond that which tends to purify and exalt the physical life. Their highest aim must be to subdue, or govern the passions which tend directly to impair the physical health, and because of this tendency, however much they may talk about an Infinite God and religion, they really mean nothing but Nature and a conformity to its laws. They can not mean any thing more, because the senses are confined to nature and its operations, and those who admit no higher testimony can have no higher laws, or rules of life and health. I cannot avoid running into this department of the healing art, because it belongs to the subject, cannot indeed be separated, for, do not our works on materia medica speak of the mental effects or connections of every drug brought under consideration? We must therefore consider the mental philosophy which is connected with the agencies of cure.

be suppressed. It is already bursting out in various ways through some of our medical journals!

The present view of this peculiar mental science, with regard to the agences which produce or rather develop "high organizations," that is, the best condition of both mental and physical health, is it to be found in the repeated statements of Herbert Spencer. It is substantially this: There is an implanted or spontaneous desire or passion in one great class of the animal world to catch and eat the other, and in these a corresponding desire to avoid being caught and eaten. The benefit is mutual. This peculiar passion and counter passion are the agencies of destruction to disease, and of the most robust health, in both departments. For the faculties, mental and physical, of those that pursue, are increased and perfected by their work, from generation to generation, and the faculties of those that hide and run in like manner unfolded by their constant efforts in this direction; the weak and sickly perish, and are thus cured, those among the pursuers because they cannot keep up and so catch and share properly in the game, and those among the pursued because they are more readily caught and eaten. But does fact support the theory? Are animals - wolves, tigers and dogs, for instance—fleeter, stronger and swifter than they were in the days of Homer? Do not fossil remains indeed indicate that, in the first ages of the world animals were as well developed as now, and some of them far better, or at least, more largely?

The same philosophy, moreover, is applied to the human race. Men, from the beginning, have had a peculiar passion or cupidity for war, to kill and plunder each other, and to avoid being killed and plundered. The consequence, from age to age, has been the development of courage and strength and sagacity, while the more cowardly and weak and stupid have been destroyed by the operation. Art has also been developed from the necessity of inventing the best weapons for destruction and the best means for defense. Industry is developed from the necessity of constant activity. Large communities and nations are formed from the need of union to attack and defend. Elevation of the moral nature is effected by the discipline and subordination which are required. And thus the passion to kill and to avoid being killed is

the primary means of developing life and vigorous health in men. The good work is greatly enhanced by the survival of the aforesaid noble ones, to propagate their ever accumulating strength and noble qualities, while the puny and therefore ignoble die childless. The process seems to be greatly accelerated in our day by many physicians who finish off the sick and feeble as they fall into their hands, making good use of their Materia Medica for this purpose.

Now on which side of this theory are the facts? Which tends more to develope the arts, war or peace? Which of the races or tribes of men are most renowned in the arts, those whose chief employment has been war from time immemorial, or those who have sought peace, and have fought only when compelled for self-defense, and then from no love of it? Or does constant fighting tend to unite and form people into great nations? # Are not the most perpetual fighters usually dispersed into the smallest tribes? And when the chief work of a great nation becomes war, does it not soon decline and fall? Was it the passion for war which made the great nations great, or was it industry in mental and moral science, and in the arts of peace. which made them strong even in war? It is admitted, as a part of this war theory, that when peoples have become healthy and strong by means of war, the same agency tends afterwards to weaken and reduce them, but the reason is claimed to be that the healthier and stronger are then taken away to the wars and killed, while the weak and sickly are left at home to propagate the species.— But is it true that the feebler portion are not left at home in the same way, even in the yet undeveloped tribes, while the braves go out to meet danger on the war-path? Or is it true that after growth and civilization the warriors do not perform their full share in propagating the race? It is admitted that war inevitably "antagonizes civilizing discipline of social life!" How then can it be "a step towards attributes that are permanently essential?" Why injure "industrial growth" more after it is well grown than before? In short, if the hatreds, revenges and cruelties which are inseparable from the passion of killing and counter-killing tend to develope the health, strength and morality of mankind, why will not their continued exercise tend to sustain what they have brought forth? I feel disposed to look upon the whole theory as a delusion. The tendency of such passions is to demoralize and weaken, and plant disease in the human system. And the physician's duty as a conservator of the public health, is to set himself against them.

But I must now descend to that which is ordinarily understood as Materia Medica—to the realm of drugs:

There is one feature in relation to the action of drugs which renders it a little uncertain whether we are really Homœo-pathists or Anti-pathists, or a combination of both. I refer to the primary and secondary effects of our medicines, which they all seem to possess, and which are directly opposite to each other. We are told by some of our teachers that cures are wrought by means of the primary effects when they are similar to the characteristic symptoms of the disease. But how do they know it was not by means of the secondary and opposite effects? Others tell us that some diseases at least are cured through the secondary effects when these are similar. But how do they know this? If any one can give a reasonable answer to these questions, let him do it. It is true that most diseases are also endowed with opposite symptoms, and thus correspond with the remedies which cure them, but this does not inform us whether the work is done by means of the similars, or their opposites. But if you cannot show that it is done by means of the similars, I cannot show that it is not, and hence I am willing to call myself a Homeopathist. The law of similars is at least an apparent truth, and is a good rule to follow in pracetce, for whether the work is done by the primary or secondary operation of the remedy, is not, perhaps, of much importance. Allopathy is quite a different thing, for that simply means other than the disease; it neither meets directly nor corresponds; it is the "alterative" principle.

And now, being in the critical vein, I must refer to the sickly and bloated condition of our materia medica. Its provoking redundency would be in a great measure relieved by expunging mere repetitions. The peculiar modes of expression used by each prover, however uncouth or ridiculous, appear to have been preserved as if they were sacred. And then grave professors in our colleges gather up these quaint, idiomatic repetitions and absurdities, one by one, and parade them as particular symptoms to be sought for in various diseases. This point may be illus-

trated by an example: A magazine now lies before me, in which I find an article from one of these learned men, unfolding the perplexing subject of intermittent fever. He is confidant that he has solved the problem; for he opens by saying, "I think, in fact I know, that all cases may be cured with the proper Homæopathic remedies, and that a failure to cure on the part of the Homæopathic physician, is a want of proper knowledge of the Materia Medica."

He then goes on to instruct us with regard to about forty drugs in their several and special applications to as many different phases of intermittent fever. Chief among the few symptoms of the group, which he says call for Anacardium, we find "want of moral feeling; he is cruel to domestic animals, and he desires to curse and swear; he has two wills, or contradictions between will and reason." Whether he has two wills, or two contradictions appears to be uncertain. Now, is this really a group which belongs in common to Anacardium and a species of ague? When called to the patient, must we inquire of his wife, children, or friends, whether he lacks common morality, is cruel to their pets, loves to curse and swear, and has two wills or contradictions between will and reason? And if we find all this to be so, may we be sure that Anacardium will cure him?

In the Bryonia group we find, "More fever in a warm room than in the open air." Who would not have? And further, "The patient has dry constipation." Is not constipation usually dry?

A prominent symptom of the Arnica group is, "Sensation as if a ball of thread were rolled up in the stomach." There is no intimation as to what the ball must be rolled up in.

For Digitalis we have, "Fever with increased action of the heart, with slow, irregular pulse." A slow pulse with rapid action of the heart!!

In the Ferrum group we find, "Vertigo, particularly when descending, and when looking at running water." Where must we make our patient descend? And if he becomes dizzy, how shall we know whether it corresponds to the Ferrum, or the running water?

For Sepia we have, "Pulsation in all the blood-vessels." Who

does not know that there is always pulsation in the arteries, but in the veins never?

These are but specimens of the professedly well-considered and accurate wisdom of our teachers in the science and application of our materia medica. A constant repetition of such things. together with others which are not so ridiculous, fills an immense number of broad pages. And then the diluted matter is further spread out by means of large type and thick, heavy paper, so as to make great volumes, for which we must pay the round sum of ten or twelve dollars, and then get our brains muddled in trying to understand them. If mere repetitions were abandonded, and the symptoms thrown out, which are not supported by such evidence as common prudence requires with regard to all other branches of knowledge; and the honest remainder were put into brief and simple English: what a shrinking there would be in our double-volumed works on materia medica, or practice! A single duodecimo volume of five hundred pages, worth about two or three dollars, might contain all that we know about the effect of drugs. I say this deliberately. after having thus pruned most of them for my own use. Is there anything unreasonable in having a similar work done before long, by somebody, for the profession at large? Is it necessary to preserve and guard all the strange ways in which our many provers have described and repeated the drug symptoms? Or, to preserve the symptoms which, for anything that appears to the contrary, may have quite as probably risen from a source other than the drug to which they are assigned? Would not such a work go far towards helping us out of the "slough of despond" in which we confess ourselves to be floundering? But whoever does this may expect to find himself traduced for sacrilege, or branded by his well-meaning brethren as a deserter from "pure Homœopathy." LEWIS BARNES

Whatever may be the delinquencies of Homœopathy, or its therapeutic law, it has this advantage—to practice it with reasonable hopes of success requires more than an empirical knowledge of the drugs employed.

Miscellaneous.

MEDICAL EDUCATION OF WOMEN.

Shall women become physicians, is no longer a mooted question. Already many women have received the title of M. D., and numerous colleges exist where they are educated; in some, by themselves, in others both sexes are admitted on equal terms: and in all cities and large towns can be found the signs of "Mrs." or "Miss Dr. ---." And so long as "Miss" remains unmarried or "Mrs'." husband is not able to support her and the family, they will be sure of securing a practice. We are quite willing to admit that the "world needs them," and that they, in many instances at least, are quite capable of practicing medicine. And now, since no one denies her right to become a doctor, the only question unsettled is, how shall she be educated, and what part of a physician's duties shall she assume? Widely different opinions exist in regard to the answer these questions should receive. The large majority of female students demand that they shall be admitted to medical colleges with all of the privileges and immunities given to men; they shall be allowed to attend all clinics and hospitals with male students, and receive the same diploma certifying to their qualifications to practice medicine and surgery. And where several medical colleges exist in the same city, some giving instruction to women alone, others admitting both sexes, the larger number of women will attend the latter; perhaps not so much from a desire to at tend where the sexes are educated together, as from a determination to gain what they call their "rights."

A large majority of male students prefer that women shall not be admitted to colleges where men attend; a small minority are indifferent, while a very few are anxious for the attendance of women. None, however, are willing that their sisters or intended shall be among the number. The Faculties of the several colleges, like these students, differ in opinion in regard to the admission of women. Those of allopathic colleges have, with few exceptions, followed but one course: no women admitted. Homœopathic colleges are divided, some permitting

their attendance with an emphasized provision, (for fear that men will not attend) "no change in the lectures."

People who know nothing of the working of colleges, and take little or no interest in them, when appealed to by women, in their effort to gain admission where they are not admitted, usually say, they ought to be allowed to attend all medical lectures with men.

Those writers for the press that know how corporated bodies should be managed, precisely the duties of city councils, and the like, who are always ready to criticise the acts of deliberate bodies, and are even ready with opinions on the financial management of a country, state or town, are generally surprised and offended that their plans are never adopted. They know exactly what colleges should do, and are always certain that women should obtain their medical education in colleges intended for males.

With such a difference of opinions in reference to the question as to where women shall receive their medical education it is best to appeal to the experience of the past, in order to gain evidence for the solution of the problem. It is best to be guided by observation in forming final conclusion, as to what part of a physician's duties woman can best perform. Having been longer than any other living man a teacher in Homeopathic Colleges. and having been for nearly twenty years connected with the first institution in this country that admitted women, we claim the right to be heard, and to give our evidence in the question at issue; and more especially, since we have chiefly taught surgery, a department of medicine that women rarely attempt. We believe that no professional jealousy can exist to prevent us in forming a correct opinion. We have no hesitancy in saving that the education of the sexes together in medical colleges, has prevented in many instances, a better class of women from study ing the profession, and has materially interfered with the clinical instruction given to male students. And we are certain if the young men who now control the interests of the college that we labored the best part of our life to build up, only knew of the iniquity that constantly arises in consequence of educating the sexes together, they would not permit such expressions to appear in their organ as "Philadelphia and Cincinnati still selfishly and wickedly exclude women," nor would they wonder that the incorporators of the Pulte College, avowed in its incipiency, that it forever should be a college for educating the sexes apart.

As a general practitioner, woman rarely succeeds, and in those cases where she has gained a creditable reputation, it has been in the treatment of the diseases peculiar to her own sex. And if the women of to-day, who are desirous of becoming learned in the medical profession, would but learn and profit from the experience of their older sisters in the profession, and be willing to free themselves from the slander that has been and will be given to many of those women who attend medical lectures in colleges admitting both sexes, they at least would pause. Let them consider if it would not be profitable for them to devote their time to the study of the departments of medicine that woman has most successfully practiced. And if they desire a better and more intelligent class of women to engage in the study, they will certainly favor any plan of education that offers no inducements to unworthy women to become their associates during their studentship.

If what we stated is true, (and we can furnish abundance of evidence to prove its truthfulness) it seems to us that but one course should be adopted by the Faculties of our colleges in reference to woman's education, viz: establish separate departments, hold their session at different times in the year, and thoroughly teach women in Obstetricy, Gynæcology, and diseases of children; and when they have mastered those branches give them a special degree, certifying to their qualifications, and we venture to predict that the time is not far distant when all true women will desire the adoption of this plan.

At the origin of the college that I have the honor to belong to, this plan was discussed, and I am in hopes that as this college has taken initiative steps in raising the standard of medical education, it will be the first to establish a separate department, where those women will attend who fully appreciate, by virtue of their sex, the facts that nature has adapted them for that portion of the practice we have designated.

S. R. Beckwith.

Ludlam's Clinical Lectures on Female Diseases has been now on our table some weeks awaiting the adverse criticism of a valiant knight of the pen, who promised us he would demolish the production forthwith. Meanwhile we have obtained a better acquaintance with the work, and are prepared to give it our hearty commendation. In its attempted sphere it fills an important place, and will be found to be of immense practical value to the profession. It does not assume to be a systematic treatise, neither does it profess to be in its treatment so exclusive and precise as are many practitioners of our school. But Prof. Ludlam in an admirable style discourses in a thoroughly practical manner on all the leading diseases incident to the human female, and the peculiar excellence of the work lies in the fact that it is an outgrowth of a large and varied experience, and those in want of practical information will peruse these pages with interest. A clinical rather than a systematic method of presenting the subject may be a fault of the work. But being as he is a busy practitioner, and a practical teacher of large experience, Prof. Ludlam could in no way express himself so well as in the manner he has chosen.

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Archives of Ophthalmology and Otology, Vol. II, Nos. I& II. Wm. Wood & Co., N. Y.

It is with great pleasure that we notice this able journal more than maintaining its position in the profession. Both the quality of the publication and the patronage it receives are pleasing indices of the liberality and intelligence of the medical men of our country. As compared with the whole scope of medical science the Archives is devoted to a small field of investigation; yet many professional men are hardly aware of the great extent to which the pathology and therapeutics of eye and ear diseases have been developed. A cursory glance however at these elegant semi-annual volumes will convince any one that these departments hold high rank, and may yet outstrip all kindred sciences in medicine. The beautiful lithographic plates which adorn each number are fully worth the price of the volume. No text book extant can convey to the mind of the student so accurate an explanation of the mysteries of the eye and ear as these. The four numbers already issued make two elegant volumes, and should adorn the library of every physician.

Hand Book for the Physiological Laboratory, By E. Klein, M. D., formerly Privat-Docent in Histology in the University of Vienna, Assistant Professor in the Pathological Laboratory of the Brown Institution, London. J. Bourdon Sanderson, M. D., F. R. S., Professor of Practical Physiology in University College, London; Michael Foster, M. D., F. R. S., Fellow of, and Prosector of Physiology in Trinity College, Cambridge; and T. Lander Brunton, M. D., D. Sc., Lecturer on Materia Medica in the Medical College of Bartholomew's Hospital. Edited by J. Bourdon Sanderson. 2 vols., 8vo., Text pp., 583. 123 Plates, (bound separately). J. & A. Churchill, London, 1873. Robert Clark & Co., Cincinnati.

The practical utility of a work like the above will be appreciated both by the student and the lecturer in the departments of Histology and Physiology, although space will enable us to give no adequate idea of its scope and value, which require a careful study of the work itself. The work is arranged systematically, being divided into thirty-nine chapters, of which the first fourteen treat of Histology, under the following heads: Blood Corpuscles; Epithelium and Endothelium; Connective Tissue; Muscular Tissue; Tissue of the Nervous System. Part II treats of the Preparation of the Compound Tissues: Vascular System Lymphatic System; Organs of Respiration; Organs of Digestion; Skin; Cutaneous Glands and Genito-Urinary Apparatus; Organ of Special Sense; Embryology, with an appendix in the study of Inflamed Tissues. The balance of the work is devoted to a practical and experimental treatise of Physiology, with general directions for experiments, vivisections, description of apparatus, etc., etc. It will thus be seen at a glance, that this work meets a demand long felt by the profession, and which no other work, in this country at least, undertakes to supply. It is simply invaluable to the student desiring a thorough knowledge of the important departments of which it treats, and will facilitate experiments, and save much valuable time by the definite instruction and faithful details which it affords. An American reprint is shortly to be issued by a Philadelphia firm, which will bring the work within the reach of all medical students, who can not possibly make a better investment than to procure it.

NINTH ANNUAL SESSION OF THE HOMŒO-PATHIC MEDICAL SOCIETY OF OHIO.

The ninth annual meeting of the Homœopathic Medical Society of Ohio was held in the City Council Chamber at Columbus, May 14th, the President, Dr. S. S. Lungren. of Toledo, occupying the chair. A large number of professional gentlemen was present, besides ladies not members of the Society.

Dr. A. O. Blair, of Columbus, delivered an address of welcome, and was requested by the Society to write it out for publication.

Dr. Hamilton Ring, of Urbana, read a paper on clinical medicine, which was accepted; and several other gentlemen made statements of their practice.

Dr. Beckwith asked for the experience of the convention in the treatment of cerebro-spinal meningitis. Drs. Coulter. Kinsell, and Flowers of Columbus; Dr. Lungren, of Toledo; Dr. Beckwith, of Cincinnati; Dr. Sanders, of Cleveland; Dr. Runnels, of Indianapolis, and other gentlemen, spoke on the subject. Their observations differed materially, and there was a general agreement that there are many varieties of the disease: some of the physicians who had had the greatest number of cases declared that no two of them were alike-in fact each of them was widely different from any other; and yet every case was unmistakably cerebro-spinal meningitis. One gentleman who had had eleven cases said sometimes the head bent backward, sometimes forward, and sometimes to the side; in one case the head and heels almost came together. On examination of the eyes in two cases a congested condition of the retina was found; in auother case one eye was affected differently from the other; a brother and sister, with two years difference in age, were afflicted at the same time; and in one of the cases the pulse was at 40, and in the other at 160. One patient would be ravenously hungry, while another would loath food; one would be extremely thirsty, while another would not drink a drop.

In some cases reported, paroxysms of passion had been observed, and in a few instances the afflicted person had been exceedingly profane.

The case of a young lady of this city was stated. She wa

apparently in perfect health in the forenoon, received fifteen or twenty callers in the afternoon, ate a hearty meal in the evening and went to bed well at nine o'clock. At ten o'clock, her mother passed through the young lady's room and did not observe any sickness, but in half an hour afterward was called back by loud screams; and in half an hour more the patient was dead.

Dr. Runnels stated the case of a young lady who did not sleep for about two days, and who for sixteen hours suffered intensely, screaming almost constantly so loud that she could be heard the distance of half a square. He used belladonna, ice, blisters,—in fact, every remedy that he knew of in connection with the disease, and everything he could gain from his books—but without a particle of benefit to the sufferer. At last he tried electricity- Applying the positive pole of the battery to the base of the brain and the negative at the feet, he induced sleep in fifteen minutes; the patient slept for twelve hours, and recovered in three months.

At 12½ o'clock, the Convention adjourned till 2 p. m.

The Society resumed discussion in the afternoon. Dr. Lewis Barnes, of Delaware, said that he had been successful in nineteen out of twenty cases, and spoke of tartar emetic and opium as among his prominent remedies. Dr. William Owens, of Cincinnati, thought the profession ought to ascertain the pathology of the disease, and apply the remedies pathologically. He spoke of the case of a girl thirteen years old who had come under his treatment in December last, after eleven months sickness; she could now walk across the room, and there was hope of her recovery.

The Secretary, (Dr. H. H. Baxter, of Cleveland,)presented a paper on the "Retro-Pharyngeal Abscess of Infants," by Dr.C. H. Von Tagen, of Cleveland, which was accepted and referred for publication.

Dr. Owens, of Cincinnati, read a paper on Surgery, which was accepted and ordered printed, and Dr. Beckwith and others spoke briefly on the same subject.

Dr. H. H. Baxter, of Cleveland, Dr. L. Barnes, of Delaware, and Dr. H. Ring, of Urbana, read papers on Materia Medica, after which the Society adjourned till nine o'clock next morning.

In the evening, at the Universalist church, Dr. Beckwith delivered the annual address.

After the address, the professional gentlemen, with a number of invited guests, proceeded to Ambos Hall, where Stevenson, Glock & Co. had made elaborate preparations for a banquet. There was much enjoyment, and after the feast had been duly attended to, Dr. Flowers read the toasts of the evening—Homæopathy, Allopathy, Homæopathic literature, etc.,—and felicitous responses were made by Dr. Barnes and others.

THE AMERICAN INSTITUTE OF HOMŒOPATHY.

The twenty sixth annual session convened in Cleveland June 3rd. The attendance was large, though not up to some previous meetings. The President Dr. A. E. Small, performed his duties with universal satisfaction. The number of papers presented by the bureaus, and the discussions they gave rise to, exceeded in quantity, and equaled in quality those of any former session. There were less personalities indulged in, and ill feeling engendered, than are usually found at these meetings.

As usual there was too much talk. The rule compelling speakers to take the stand did not entirely shut off valueless discussion. A few irrepressible gentlemen spoke on nearly every question, and spoke as often as they could get a hearing. Some who would have been glad to speak found no opportunity. The talk on babies diet was full of interest. The talk on bone surgery was not satisfactory. The surgeons did not show to advantage in it. Dr. Clark's paper on Phthisis did not do its author justice nor please the Institute. He must do better next time. Dr. Gregg's subject was voted stale. His views besides being old and oft'repeated, did not meet with approval. It was first voted to print his paper, and afterwards it was left with the Publishing Committee to do what it pleased with it. Dr. Gilchrist's statement that Homœopathy can cure every known disease only called forth an incredulous smile. Dr. Cooke showed considerable pluck in presenting his resolutions on criminal abortion, but he did not show good judgment in drafting them, nor did the InstiDr. Mary Safford Blake created a fine impression in making her debut before the learned and critical body of gentlemen. Dr. J. B. Owens made a telling point, when he suggested that abdominal tumors suddenly relieved by high potencies, were very likely only fæcal matter accumulated in the bowels. Dr. Biggar's presentation of the clinic, from whom he had successfully removed a large section of the alimentary canal created much interest. Dr. Pearsons paper shot over some heads we know of, and the discussion that followed showed that the ideas of modern science could be dispassionately considered on the platform of the American Institute of Homæopathy. Dr. Buck very neatly put the whole matter in a nut shell. Dr. Dake's project of a new Materia Medica, elicited an important and valuable discussion. It will be heard from again.

The effort to throw overboard the election of one of the board of censors because she happened to be a lady did not succeed. The banquet tendered by the physicians of Cleveland, was a brilliant and happy affair.

Had we space we would be glad to extend these running comments. As it is we must content ourself with a few personalities by way of a finality. Let none of our many friends whom we leave unmentioned accuse us of partiality. They shall be remembered next time. Our estimate of some of the prominent personages is this:

Dr. Talbot was the sagacious man; Dr. Brown the radical man; Dr. Swazey the disputatious man; Dr. Franklin the earnest man; Dr. Ludlam the witty man; Dr. Beckwith the self-sacrificing man; Dr. Duncan the silent man; Dr. Kellogg the material man; Dr. Cooke the funny man; Dr. Smith the business man; Dr. Mc Manus the correct man; Dr. Pearson the serious man; Dr. Schneider the genial man; Dr. Holt the talkative man; Dr. Buck the scientific man; Dr. Dake the reformatory man; Dr. Sanders the polite man; Dr. Gause the handsome man; Dr. McClatchey the useful man. Time and space will not suffice us to speak of all the notable characters whom we saw and heard.

The scheme broached for the consolidation of the western colleges into a grand and amply endowed university—was in our opinion simply Utopian. It cannot, and it ought not to be done.

We are likely to have in the future, more, rather than less medical colleges. We say, give all a chance, and then abide by the inexorable law of natural selection—the survival of the fittest.

A pleasing feature of the session was the fact, that so large a number of the members promptly subscribed for the ADVANCE.

EUROPEAN CORRESPONDENCE.

VENICE, May, 1873.

MR. EDITOR: -The first number of the CINCINNATI MEDICAL ADVANCE has just reached me in this far off clime. It is a pleasure to receive an American journal containing so much original matter and so beautifully printed. I do not hesitate to predict it a successful enterprise. I read on page 41 "The doctors have the traveling rage. The capitals of Europe are filled with them." True there are a large number of professional men in this country. In Italy one meets almost daily familiar American faces that at some former time have been seen at medical conventions in America. These men have overworked minds and bodies. and they have been compelled to leave their homes and daily labors and find rest where it best could be obtained. Here too we find the lawyer who has no briefs to prepare; no intricate cases in law to investigate. Here are judges; they have no more juries to charge or knotty questions to decide. Here are clergymen; they have no more sermons to write or preach. There are merchants here, that are glad to have no quarterly statements and yearly balance sheets to look on. This is in fact a grand asylum for men who require rest from business. It seems strange to find so many of them here, giving so little thought to money making, and so cheerfully giving all their time to sightseeing. The climate of Italy is well adapted to the work of restoring and improving exhausted systems. Each day the tourist finds some point of interest. In the sixty days I have spent in Italy, there have been only a few hours rain, and we have been scarcely detained from sight-seeing for an hour. The climate is mild, and on the Mediterranean and Adriatic is very stimu

ing to many invalids. From November to July it is healty in all portions, and may be visited with safety. There is no other country that presents a greater variety of scenery; and it is not strange that the tired physician casts his longing eyes over the map of Europe feeling an irresistable desire to spend a few holidays amids its beautiful sights and health-restoring atmosphere. Such is the variety of scenes, costumes, manners and amusements, it can not fail to give enjoyment to all who come on the pilgrimage. The large cities are so well supplied with hospitals, medical schools and museums, that the physician can profitably spend his time in visiting and studying in them. He will return home with larger, truer, and newer views of his profession. At some future time I hope to be able to give your readers an insight to the climate of Italy, and to indicate what my somewhat extended observations have shown as to the class of patients that are likely to be benefited by coming here in search of health.

D. H. BECKWITH.

PERSONALS.

DR. MARY J. SAFFORD, and PROF. J. C. SANDERS, will hardly thank us for the blunders made in their names last month. Our proof reader must do his work better or we shall raise his wages.

The father of DR. J. J. YOULIN, our newly elected President of the American Institute of Homœopathy, died on the 8th. inst. DR. T. S. HOYNE, publishes a directory of the Homœopathic physicians of Illinois. Could not the other states be equally favored? DR. H. M. PAINE of Albany, sends us a carefully prepared list of

the Homœopathic physicians of the State of New York. We would be thankful for a like favor from all parts of the country.

DR. O. W. LOUNSBURY, has been appointed resident physician of the Homœopathic Free Dispensary of this city.

DR. F. B. SHERBURNE, has returned to Bellefontaine O.

RECEIVED.—Analytical Therapeutics. Typhoid Fever. By C. Hering M. D. Bæricke & Tafel, New York.

Longevity and other Biostatic Peculiarities of the Jewish Race. By John Stockton Hough M. D. Wm. Wood & Co. New York. Medical and Surgical History, of the war of the Rebellion. Part First. "What have the modern scientists done? They have only pushed the problem a little further back. They fail after all to account for the beginning of life." And this is said in blissful ignorance of the truth that to "push the problem a little further back" is a work of no small magnitude. Once it covered all the ground of thought, it held eminent domain over every department of investigation; it possessed the key to every position worth being occupied. The soul of the body and the soul of the universe accounted easily for everything. Their presence and power were so all pervading that it was a sacriligious act to question their mode of operation. That they could be made creatures of law or could be found acting in conformity to law; that they could be held to any rule of action but their own irresponsible whims was not even to be contemplated.

We had thus a ready solution for all problems the universe might present. What need of any other? Well, a few heroic souls affirmed the need a great one. They met it manfully With whip they drove out the metaphysical babblers who defiled the human temple with their worthless merchandise. They found law and order to be the rightful possessors thereof. They dethroned the mythical vital principle. They relegated the soul to the domain of psychology, and demonstrated respiration, digestion, circulation, etc., etc., to be acts due to and in conformity with mechanical and chemical laws.

They went abroad through the universe, and on every hill top and in every valley set up the standard of induction. Their watch word was the unity and harmony of nature. A false and discarded political doctrine upon which the power of a great nation once fell, bruised and broken, namely "the right of search," became in the hands of the scientists an agent of irresistable power, opened to them and to the world countless treasures of priceless knowledge.

But these scientists have not done everything. Much they have done is but poorly done, and much that may be done they have not even attempted to do; but "they have pushed the problem a little further back," and are pushing at it still. It can not just now be told how far they will carry their work, but we are quite certain they seem determined to "push things."

A writer in a recent Popular Science Monthly devotes much study to the so-called ancient "drift period" of Minnesota. Geologists have become so accustomed to ascribing present conditions to very remote causes, that the reasonableness of their theories does not always receive proper attention. This writer ascribes the formation of the bluffs in that state to the action of former rivers. If this were true, -and he does not argue the statement, merely laying it down as a fact,—there must have been a very broad and high table land there in that ancient time. and a number of rivers intersecting each other at closely adjacent angles. These singular rivers must have worn the surface very evenly, and jumped their banks to wear down the prominences all over those vast prairies back of the bluffs. Again, there is a heavy post-tertiary alluvium upon all those hillsides, and upon those prairies; and there seem to be slight indications that one portion of the exposed surface was receiving the alluvial deposit for countless ages, while another portion was being stripped and borne to the sea. It seems to us there are many indications which render it impossible that these great bulwarks of the Mississippi should have been created by rivers. Does the Missouri now create bluffs? On the other hand, it is constantly turning up level plains of sandy alluvium, as evidenced all along its course. FISH.

A Settled Rule in Pathology, is that the study of the natural parts must always, precede the study of the parts diseased. A recent writer urges upon students, the need of familiarizing themselves with the normal states of the uterine and vaginal organs, before they attempt to investigate their conditions altered by disease. We are in a quandary as to how this can be done. Artists who paint and carve representations of the nude human form, do somehow find their models. Perhaps medical students equally determined and equally devoted to their art, might find ways and means for suitable subjects in a state of health. The writer refered to does not offer any suggestions on that point, and we have none to offer, but we invite proposals for the best plan of supplying this much needed help to our truth seeking and earnest students.

Human nature having revolted at the constant request of reg ular Physicans to swallow villainous compounds, sugar-coated and otherwise, and subcutaneous injection not answering in all cases, the tendency of the times is to give all noxious drugs per anum, in the shape of suppositories. A medical exchange says; "What a comfort it is to patient and parent, and how convenient to the doctor, when bitter nauseous medicines can be smuggled peacefully into the stomach of a child." Ah, yes, and grown people too! Who knows but that not only medicine, but victuals and drink may yet be "smuggled" into the "stomach" by this popular route? Another journal, commenting on the subject, remarks that "the doctor, patients, and attendants, who have once tried the method" of giving medicines by suppositories, "to children and fastidious people," will be sure to practice it. Are the Dentists aware of the danger to their profession? Or will they meet the emergency of a total need of mastication in the ordinary channels by a new developement of their art?

THE MEDICAL EDUCATION OF WOMEN receives attention from one of our contributors in the present number. It is worth being thought of in that light. The question of mixed or separate classes may properly be held in abeyance, until we give the latter method a fair trial. The Cleveland, Chicago and St Louis, Homœopathic Colleges, are trying the former with a division of opinion, as to its merit. The Cincinnati faculty are to try separate terms for the two sexes, and we look for results that will create a reaction in favor of that plan. Our personal preferences in the matter are open to modification, if the scheme proves successful.

THE MICHIGAN UNIVERSITY.

The Board of Regents of the Michigan University, do not propose to fulfil the recent law placing two Homœopathists in the Faculty, as they thereby impoverish the whole institution. The following are three out of a set of resolutions they adopted at a late meeting.

Resolved, That we maintain the position heretofore taken and decline to make the appointments required by the law.

Resolved, Further, That we do this in no spirit of factious op-

position to the apparent will of the Legislature, but because we believe the true and best interests of the University demand it.

Resolved, That we reaffirm the former action of this board, expressing a willingness to take official charge of an independent school of Homœopathy, and connect it with the University whenever the means shall be provided for the payment of its professors.

THE BIG TELESCOPE.

We always feel repaid for a visit of half an hour to the workshop of our friend, Alvan Clark; for he is a man thoroughly in love with his work, and ennobles the work while he is ennobled by it.

The large telescope for the Naval Observatory is rapidly approaching completion, and it is hoped that it will be in place by the end of September. The tube is now being manufactured. This is of sheet steel, and built up in such a way that its largest diameter is at the point of suspension, each succeeding segment towards either end fitting into the one preceding it; so that the tube will, when completed, be cigar-shaped. Work on the large instrument has been delayed somewhat, from the fact that work on the small transit instruments for observing the transit of Venus admits of no delay. The Messrs. Clark are constructing ten of these instruments; eight of them will be accompanied by chronographs, which they will also build These telescopes are all adjustable for polar distance; since, being intended for use in various latitudes, they cannot be adjusted permanently, as in the case when the exact position of the observatory is known. They are run by clock movements, which are reversible, thus fitting them for north or south latitude.

Mr. Clark is also at work on the glass stolen about a year ago from the Alleghany Observatory, correcting its figure and repolishing it, as it was somewhat damaged while in possession of the thieves, who buried it in the ground. He has just sold the twelve-inch glass which he has had on hand for a year or two past. This is to go, we believe, to the Imperial Observatory at Vienna. The glass for the second large telescope is not yet made, but they are expecting word that it is ready for their inspection,

PHENOMENA OF THE BRAIN.

One of the most inconceivable things in the nature of the brain is that although the organ of sensation, it should itself be insensible. To cut the brain gives no pain; yet in the brain resides the power of teeling pain in any part of the body. If the nerve which leads to it from the injured part be divided, we become instantly unconscious of suffering. It is only by communication with the brain that any kind of sensation is produced; yet the organ is itself insensible. But there is a circumstance more wonderful still. A certain portion of the brain itself may be removed without destroying life. The animal lives and performs all those functions which are necessary to simple vitality, but it has no longer a mind. It can not think or feel. It requires that the food should be pushed into its stomach; once there, it is digested, and the animal will even thrive and grow fat. We infer, therefore, that a part of the brain is simply intended for the exercise of the intellectual faculties, whether of the lower degree, called instinct, or of that exalted kind bestowed on man, called reason.-x

The Proceedings of the Ohio State Society have been cut off in this issue, with the First Days Proceedings. But the balance is too valuable to lose, and it will yet appear. There is enough valuable material at some of these society meetings, to keep an article in every issue for the succeeding twelve months.

THE CRIME AGAINST THE CHILDREN.

The following sensible and truthful remarks we find in the CHISTIAN UNION. Our civilization has proved to be the mother of unmeasured evils. Our notions of refinement are vicious in the extreme. Our unnatural attempts at concealment are bearing such fruit that we may well question the propriety of changing our modes of instruction as well as our fashions of dress. Mr. Beecher discourses as follows:—

"It is ascertained that more than six thousand persons are daily employed in the business of disseminating books, pictures, and implements, of an obscene nature. Hardly a school in the land has wholly escaped its

contagion. Mr. Comstock, acting for the Young Men's Christian Association, has seized in New York more than fifteen thousand letters of orders to dealers in and publishers of these wares, written by students of both sexes. City children going to and from school often have a coarse book or a picture slipped into their hands, with injunctions to secrecy. Before

parents suspect danger, irremediable ruin may be wrought.

Wherever his literature is sent, there go with it the means and incitement to nameless vices. Mind and body are so insidiously undermined that the victim seldom knows to what swift end he is tending. Prisons and mad-houses testify not less to his debasement than to his ignorance. There is scarcely a convicted criminal among whose effects is not found some article of this forbidden traffic. Medical experts testify to the frightful per centage of idiocy, insanity, and sottishness, due to the vice which the trade in obscenity teaches and fosters. And by its evil services do bagnios thrive. This standing menace to our social order has never been so threatening as now; first, because the cheapness of manufacture multiplies indecent publications and appliances; secondly, because the cheapness of transit scatters them broadcast. With our system of public schools, the gregariousness of our boarding-houses and hotels, the ignorant immorality of our servants, and the stout democracy of children as to their associates, we cannot sequestrate the little ones from this contamination. But we can save. It is because we lie to children, and confound their innocent speculation as to simple, normal, and beautiful processes of nature, that these processes acquire a morbid interest for them. The child is a shrewd observer. By our silly inventions he is not long deceived. From hint and innuendo, low jest and dire experiment, he gleans a guilty half-knowledge. As we hide from h m our experience, so he hides from us his discoveries. But he pursues them. Evil books and evil tools lie ready to his hand. His stolen waters are sweet. How shall he know that they are stolen?

When God had made man in his own image, he pronounced the whole work of his hands good. But we, wiser than God, call one organ good, and another organ evil; one function fit, and another function shameful. We teach, perhaps, the system of respiration, of circulation, the need of cleanliness and exercise and air. But of the system of generation, ignorance whereof is abuse, and abuse whereof is wreck, bodily and spiritual, we say no word. Christian mothers let their girls grow up and marry, ignorant of the fundamental law of sex, but not innocent of its violation. Christian fathers let their boys die of secret sin, or live to wrong a new

generation.

That ignorance is innocence is the most amazing as it is the most baleful superstition of the time. But there is not even a question of ignorance in this matter. The only choice is between a free physiological instruction, and a stolen sensual experience. But for the mystery which hides it, the relation of the sexes would have no more permanent interest to the child's mind than any other fact in nature. Taught by modest motherly lips, the mystery of maternity, with what new reverence would not the boy regard his mother for her motherhood that is, and all other women for their motherhood that may be! Knowing the significance of her structure and her obligation to an unborn generation, with what religiousness would the girl maintain her purity! With what healthful body and lofty mind would she accept marriage, conscious of its full meaning and extent! When we have taught our children all Nature's laws, keeping nothing back, we need not fear that they will outrage her, nor that she will betray And until that hour neither legislation, nor watchfulness, nor prayers will save them from this pestilence of obscene suggestion that walketh at noonday."



THE

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It is our fate occasionally to get inspired, (in a medical and editoral way we mean.) It catches us on the instant, and hurries us away on a rush of ideas as on a flood-tide of water. Some special topic comes up and fills like an afflatus all our little world of thought. It pleads so hard for utterance, that we could, and do wish ourselves trumpet-tongued, that we might tell it to the whole universe, (we mean of course mankind only, for it would do no good howsoever we told it to the brute creation, or shouted it to the stars—and for that matter it is just possible it would be of no special benefit when told to human beings.) But now the point is, our inspirations seldom come from reading medical journals. They would not feel complimented if we should call them as a class very stupid reading. They are all good in their way, but how much better might they be if

they would only change their style. They struggle for existence because they are dull. The laity will not touch them, and only a few of the profession will consent to worry through them All this can be, and should be changed. Let us illustrate: The sciences as we find them in Silliman's Journal are fearfully prosaic. In the Popular Science Monthly they read like romance. The sciences, all save medicine, are so popularized, that the people everywhere read them with avidity. Why the same can not be true of medicine is not clear. But the point we started out with is, that our inspirations come from an unusual quarter. Alwost every live daily paper fires us with a topic. A table talk with intelligent parties is sure to supply us with mental fuel. These things are often better than a three days convention or a long list of exchanges. They teach nothing, but they suggest many things.

DR. F. A. McGRAW, Professor of Surgery in the Detroit Medical College, in a late very able and interesting lecture, says, "Men of science have never swerved from their allegiance to scientific (Allopathic) medicine. For who ever heard of a Humboldt who believed in Homœopathy, of a Farada who put faith in mesmerism, of an Huxley who did not laugh at phrenology?" To which we beg to reply, Who ever heard of anybody that claimed, otherwise than by implication, that Allopathy was a scientific system of medicine? Who ever supposed that it could be proved to be anything else than bold empiricism? Who ever supposed the allopathic doctors were particularly well versed in scientific matters? Who ever charged homoopathic doctors with a special lack of knowledge of the sciences! Who ever knew of statistics being prepared, showing how many, if any, scientific men had embraced Homœopathy, or how many of them, rejecting Homeopathy, had implicit faith in allopathic medicine? fact is. Dr. McGraw doesn't know, and he doesn't know the man that does know. But he does know, that the truths of modern science are in every particular at war with the doctrines of the allopathic school. He knows that men of his favorite school, have violently opposed Homœopathy, chiefly on the ground that its therapeutics are based upon a definite law of cure.

knows that the homœopathic school has chiefly distinguished itself by its attempts to bring order out of the chaos, into which the blindness, ignorance, and bigotry of Allopathy have plunged medicine. And we may tell him what he does not seem to know, that scientific men in large numbers, have ranged themselves on the side of Homœopathy; and their numbers are rapidly increasing. This mode of attempting to bolster up the crumbling structure of Allopathy is not merely questionable, it is unprofessional and thoroughly dishonest. It will be sure to return to plague the inventor.

JUDGE DAY-SUPREME COURT OF OHIO.

Held: A statement made by a physician, that an unmarried female is pregnant, is not a privileged communication, unless it be made in good faith to one who is reasonably entitled to receive the information; and when made to others and the statement is false, he is not relieved from liability to the injured party, merely because on examination of the patient, he believes it to be true. Such belief may, however, be considered in mitigation of damages.

THE PHILADELPHIA DOCTORS are in trouble, and divided upon the question whether a retroflexed uterus is not also retroverted. Dr. Martin thinks it is, Drs. Morgan and McClatchey think it is not. This looks like a play upon words. Terms do not alter facts, and the fact of position being understood, why stand upon the technicality of a name? Only a Philadelphia lawyer—we mean doctor—can tell.

OBSCURE DOCTORS longing for notoriety, take notice! A short and easy road to renown is open through the department of Materia Medica. The homœopathic profession has an inborn weakness for "symptoms." It is fearfully gullible on this point.

If one has not time to elaborate a complete symtomatology out of his brain then he can jot down "Characteristics." At the rate of one every four weeks, a doctor can become notorious in a twelvemonth. Every thing he writes will be accepted. His name attached to the dogmatically stated symptoms, will go flying through

the journals and be carefully preserved in all forth-coming books that have need of such aid. There is no fear the cheat will be discovered. It is a well settled maxim that the rejection of any symptom is treason to Homœopathy.

The moment you state a characteristic, you have the advantage. The burden of proof is on those who deny its truthfulness. The day may come when the true, will be distinguished from the false; but not in this generation.

Now is your chance to win renown by piling up symptoms. Until Dake gets his Provers' College established, the tide will continue to set in this way. After that, look out for a tearful slaughter among symptoms and symptom-mongers.

THE ANNUAL ANNOUNCEMENT FOR 1873, of a certain medical college, goes with painful if not shocking minuteness, into its affairs after this manner: "The fourth floor (Mansard) is the dissecting room, which is fitted up with all modern improvements, including tanks for washing tables and subjects, with hose, etc. The hatchway for 'Material' is in the rear, with its separate hoisting wheel. It is so arranged that the subject can be transferred from the wagon to the college in one minute or less, as the wagon is driven through the alley." This is delightful reading for the public. Now what we want to know is: what college can beat this one in the time required to jerk the subject up four floors? Be sure and have it done while "the wagon is [being] driven through the alley," as that will deaden the sound of the "hoisting wheel."

THE MEDICAL RECORD has opened a Medical Department of Life Insurance. Several articles under that head appear in the number for May 15. Dr. Hough's article on the Jewish Race, will repay careful study. His conclusion, that "Jewish subjects would therefore appear to be much more advantageous risks for life insurance companies, than other races," seems reasonable from the statistics he presents. If Dr. Kellogg's attempt to show a mortality in favor of a certain medical practice based upon reliable statistics is successful, his report should appear in this department. We suggest it, though to tell the truth, we don't expect it. Perhaps however, Dr. Kellogg's efforts will not be wholly ignored by the editor of this valuable journal.

THE SANITARIAN is a very healthy-looking journal devoted to the health interests of the people. It is published in New York by A. S. Barnes & Co., and edited by A. N. Bell, M. D. With more success than some of its contemporaries, it sticks well to its object, showing little weakness for drug treatment. When it levels its lance against

"Physic and blister, powder an' pill,"

its readers all understand what style of medical treatment it has in view. But when in its editorial table it approbates Dundas Dick's capsules of Tar, Turpentine, Male Fern, Castor and Cod Liver Oil, because, forsooth, they are tasteless, we wonder if medicines are any less poisonous when they are tasteless, or if the Sanitarium has sold its columns for a consideration? Will the editor make honorable mention of sugar pellets properly medicated as equally tasteless, and not only so, but safe and successful?—which is more than can be said of the capsules.

WE HAVE been urgently requested to call attention to the fact that the Chicago doctors who figured so conspicuously in the recent Michigan Convention, all belonged to the class called "Outs," which simply means, they are not, though they once were, connected with the Hahnemann Medical College. It looks as though, aside from seeking the University Professorship, they had no intention of furthering the interests of the Chicago School. But we reject the imputations as slanderous, and will hold them guiltless until they confess.

THE MEDICAL INVESTIGATOR is departing from its true sphere. It is indulging in antiquities. A huge wolf with two hungry-looking children tugging at her udders, glares at us in a late number. The honored founders of Rome might justly be indignant at such a frightful representation of their earliest occupation. Besides, the influence of such a picture will be hurtful to the present rising generation.

Dr. Chas. E. Fisher, who received his degree only "ten short months ago," boldly denounces the forth-coming biographical work of homeopathic physicians as "a swindle and a disgrace to the profession." He says, "This 'Tom, Dick, and Harry' admittance to the homeopathic literature of the United States has gone much too far already, and should be checked." And we may add, if we had less "Charley" in it we should not suffer.

This is the way Dr. Scudder goes for his Eclectic brethren: "I put my nose into your office-door, and—Heaven preserve me! what a compound of stinks, from Asafætida to Jalap, from Castor Oil to Turpentine. Lesson No. 1, true remedies have no bad odor; clean up your stinks and put them in the nearest privy-vault, and have a thorough disinfection. Reason why—it will be money in your purse—people that pay good bills don't like stinks as a rule. Let me nose your saddle-bags and pocket-case. Faugh! what a terrible sickly smell!—reminds me of the old country doctor, who was always announced by a mixed smell of Asafætida and Jalap. It won't do in this age; burn them up and order a new stock. Now clean up yourself, and get your nose in good working order, that you may learn to diag-nose with it."

MEDICAL EDUCATION IN COLLEGES.

This trite theme was never more ably handled than in the following words by Dr. Robt. McMurray:—

A great proportion of the advantages that might be derived from the instructions of our medical schools is lost, on account of the faulty manter in which such instructions are imparted.

As far as my knowledge extends, there has never been any attempt made at classification of the students on the basis of their proficiency in their studies, or on any other, for that matter. They all hear the same lectures. the first course students and the last course students; all hear the same lectures at each lecture term, and this not only from choice, but they are all required to take the tickets of all the professors at each term.* By this means the young student is compelled to pursue studies for which he is not prepared, and the older members of the class spend their time in listening to matters with which they, at least, ought to be perfectly familiar; and besides that, the chairs are so numerous, and the different lectures are so crowded together, that there is no time for reviewing the subjects spoken of, and the mind is liable to become overburdened, and the impression made by any one course be blurred and indistinct; and just on this account. the impossibility of retaining a clear recollection of the various subjects treated of in the various lectures of the day, I have seen young men become discouraged and almost despair of ever being able to get through the much dreaded examination day.

Now, can anything be more absurd than this system of teaching, if that may be dignified with the name of system, which is entirely void of order

^{*} Several Homœopathic Colleges have since established a graded course,

or logical sequence? What would be thought of a teacher who would at tempt to instruct his pupils in the higher mathematics before they had mastered the multiplication table, or set them to scanning the Odes of Horace before they could conjugate the verb amo? Or, if you please, how would it suit a young gentleman who was already deep in the mysteries of mental or moral philosophy, to spend a considerable portion of his time in reciting the alphabet? Of course, you would all say such a course would be utterly ridiculous and absurd, but if you will take the trouble to examine the matter, you will find that this is about a fair description of the way things are done in all our medical schools.

The time is come when all this, and much more that is faulty, should be remedied. The time when it would do to graduate a student, simply because he had passed three years ostensibly in the pursuit of the study of medicine, has passed and gone, and the intelligence of the community requires that we should insist upon it that he who may be clothed with the honor, and intrusted with the responsibilities of a practitioner of medicine, should have faithfully employed all the advantages to which he may have access, to qualify himself in such a way as to merit the confidence he asks.

Now, in order that the demand made on the student, of proficiency and thoroughness in the different departments of his professional studies may be fair and just, it becomes our duty to see to it, that our institutions which invite him to their halls with the promise of affording him means of instruction, should be so thoroughly furnished with all the facilities necessary to the accomplishing of that object, as to leave him no cause of complaint of lack of efficiency.

It has already been said, and that very truly, that none of our colleges have as yet offered such advantages as would make them particularly attractive to earnest men in pursuit of a thorough and comprehensive medical education. Each of them has some professors of great excellence, in some one or more of its departments, but not one of them has, or ever has had, a full board of competent teachers. Not one of them has ever had the needed facilties for illustrating the various branches taught; none of them has ever derived from its students a sufficient income to enable it to do justice to itself or to them, much less to do justice to the paramount interests of the profession.

It is a very just cause of regret, that the members of the homoeopathic school have been so very ambitious of the honor of establishing colleges, as to cause the supply to far exceed the demand. We have homoeopathic medical colleges scattered in various sections of the country. Some well heated and some badly located, but all dragging out a precarious and comparatively up ofitable existence, with small classes, defective apparatus, and many inferior teachers. What a grand improvement it would be, if all the really first-class teachers (and we have a goodly number of them) could be united to form, say, two excellent schools, and have them located in our

great cities, where the opportunities for clinical instruction and experience can be had in abundance.

The practice of medicine is an art, and can never be properly taught by precept alone. It is as necessary that the student should have the benefit of practical experience, as for the young accountant to go through the different processes of book-keeping. Surgery proper, is purely mechanical, and as well might you attempt to make a house carpenter without handling tools or lumber, as to make a surgeon without the opportunity of witnessing or assisting at the various operations to be met with in surgical practice.

Hence, it becomes a matter of the first importance to a medical school, that it should be so located as to give its students the advantage of witnessing the effect of medical treatment as it is carried out in a hospital. Indeed, if our friends would concentrate their energies on the great task of establishing one extensive and thoroughly arranged hospital, where the homeopathic law of cure could be honestly and successfully applied to the treatment of disease, it would be but a short time before they would find themselves in possession of a homeopathic college, which would a tract all the medical students who desired to acquire a thorough knowledge of our mode of practice.

Now, why is it, that a medical college cannot be conducted on the same principles and in the same mode as other scientific institutions around us? Is there anything more difficult in teaching medicine than other sciences, or do they not need to be as thoroughly taught? Neither of these propositions will afford the solution of our question. Suppose we take a literary college for our model. We shall have two terms a year, of four months each, or one of seven or eight. Here is sufficient time to go leisurely through with all the departments of a thorough course, and allow students time to study up what they have heard. When a young man applies for admission he must submit to an examination, to ascertain whether his preliminary training has been sufficient to entitle him to a place in one of the classes. Then the students are arranged in classes according to their advancement in their studies; and a young man cannot be advanced from one class to a higher, until he has undergone an examination in the studies he has been pursuing in the class from which he comes. The studies of each class also are distinct and separate, and the teachers are not the same; so that each class has its own course to pursue, and is not troubled to listen to matters in which it is not interested. Some such a system as this should certainly be adopted in our medical schools. There should be some arrangement of the students in classes, so that they may pursue the studies suited to their degree of advancement. Of these there should be at least three, perhaps four; and if we run over the different departments of study which the student is required to go through, it will be readily seen that there is no lack of employment for both professors and students, for a term of study, as long as it is likely to be made. In the list of studies we have anatomy in all its various branches, as descriptive, topographical, pathol-



ogical, microscopical, and comparative; chemistry, organic and inorganic; toxicology, physiology and histology, materia medica, pharmacy and botany, surgery in all its branches, institutes of medicine, practice of medicine, general and special pathology and diagnostics, obstetrics, gynecology. the diseases of chilren, psychological medicine and medical jurisprudence; to all of which you may add clinical instructions in practice, surgery, and obstetrics. Now, when you remember that each of these departments is generally or necessarily divided into a number of sub-departments, we will find no difficulty in finding matter to occupy the whole time of teachers and taught, for four full lecture terms. That they can all be successfully taught in two lecture terms of four months each, will not be believed by any reasonable man who takes the trouble to examine the matter. any more than it is possible to be supposed that they can be retained when heard at the rate of eight lectures a day. How these different subjects should be divided amongst the different lecture terms, is matter which I will leave to those who are more immediately engaged in the business of teaching; but there would appear to be no difficulty in so arranging them as to have them brought forward in such order and at such intervals of time as would allow the student to go steadily forward in the proper order of his studies. And then, as regards the manner in which instruction is imparted. The usual mode of dry, formal lecturing is but poorly calculated to impress the mind of the pupil in the most thorough manner, and is still less fitted to keep the teacher informed as to the rate of progress which is being made by his pupils. This whole matter would be greatly improved if, instead of what is generally understood by lecturing, these exercises should take the form of recitations, in which the subject being pre-announced, the class would expect to undergo a general and thorough catechizing on the subject under consideration. This would furnish a motive for close study on the part of the student, in order that he may acquit himself creditably before his professor and his fellow students; and the professor would have an opportunity of correcting any erroneous impressions which may have been received, and also be enabled to keep himself posted as to the progress made by each member of the class, and to know without extra trouble who are entitled to advancement, or fit for graduation: because each member has been under his eye during the whole term of his studies.

Such a course of instruction as has been imperfectly sketched, would afford the means of an education superior to any that can be acquired in any institution in our country, and leave no excuse for any of our young men going to France or Germany to perfect their professional qualifications, for want of facilities at home.



ABOUT THE "TENDENCY."

It is said that the almost universal tendency of the scientific world to day is towards a skepticism in theological matters, developed through discoveries in the physical and metaphysical sciences. This "tendency" is deplored by many to such an extent that they refuse not only to search for scientific "news," but deprecate investigation on the part of others. This is the spirit manifested by the letter writer in a recent issue, who says all "the devils in the hells of atheists" are endeavoring to break down Christianity and Homœopathy. There are many like that writer who condemn the course of the ADVANCE in its scientific "tendency."

But, gentlemen of the good old sage orthodox belief, of whom I am one, you are mistaken, perhaps, in your judgment of the mission of modern sciences. The "tendency" of the physiological school is to develop the matter of life, and if possible its origin, as it is moulded in the matrices of the Almighty. Some of the philosophers are skeptic. Some are infidel. Some are apologists and harmonizers who have sorry burdens to bear. Some are "positivists" after the Compte School, yet the most unreliable of all. Some are Christian gentlemen who seek the truth with broad convictions of the falsity of that wondrous fabric of evolution, which will await the twentieth century for burial.

But whoever developes these facts concerning life's origin and chemico-vital relations, the mysteries themselves once solved, become of greater value to the physician than all our previous attainments in therapeutics. We have no faith in evolution or spontaneous generation. But once give us the key to function, whether developed by Compte, or the worst of materialists, and we have also the key to medication. This origin of function is the grandest of all the mysteries closed to the physician, and should that strange book ever be unsealed, pathology will become a science indeed. Let us have everything modern science can give us.

But we are disposed to criticise severely the welcome which the skeptical views of modern philosophers receive at the hands of many of our fellow-laborers. We want to talk directly to them. They love the modern theories of evolution, and linger amid the majestic dreamery of star-dust, while imaginary worlds are forming, suns paling into cheerless sepulchres, and ages repeating themselves in the destinies of countless spheres.

There are scientists who have long since ceased to suppose a compromise between science and revelation possible. He who now endeavors to make Moses an evolutionist is engaged in a thankless task of foolishness. Many persons who oppose modern philosophy are "flat-footed." They go at the root of the whole system of modern philosophy, from Compte to Spencer, and declare it false—evolution, protoplasm (as originative of life), pangenesis, survival of the fittest, pre-Adamite earth, and a host of kindred theories.

The gentlemen who can illustrate the nonentity of matter and the relation of force, and supply a gradation of nervous structures from the volvox to man, are so completely immersed in the mellow light of these beautiful ideas that the feeble opposition of the old-fashioned orthodox is unperceived. There is little use in combating the multiform shapes evolution appears in—the man who would undertake to cram into Herbert Spencer a million instances of development of the homogeneous out of heterogenous would waste his time. Spencer would long ere the thousand and first night have thrown up the sponge and adopted a new rolesome "Pangenesis" to fill out an "Origin of Species." man would be so intensely orthodox as to wade through the torn and fragmentary scraps of "Bagehot's "Physics and Politics," in order to undermine a purely fanciful creation of a mind theory-Is it worth time to disprove the psychological fairy school of Spencer's "Sociology," when the bent of his whole genius has been to rob the world of supernatural existences, after the model of Compte?

There are fields where the blind men—the sleepers in the fight for science, these old-fashioned orthodoxists, have labored. But they are among the plinths of modern science, and not upon the capitals, where evolution shoots out its gorgeous sky-rockety theories. Take from under the structure of modern evolution the geological basis for a pre-historic earth, and demonstrate positively a possibility of all the transformations on the surface of the earth occurring during the first 1656 years of its existence, and would evolution hold together? Would the nebular hypothesis,

without one single element of "positivism" about it, chain our faith, if it were found impossible that the mixed sediment of a vast and aged ocean on this earth should turn up—not granite, but chalk, while the next layer from the same original granite should be sandstone?

Of course in an article of this kind we can not enter into argument, but wish merely to say, "Hold on—not so positive?" Because Spencer lays down a doctrine of heterogeneous development, he does not render it impossible for the development to be quite the other way! Even he makes an occasional illogical argument.

We are told that the history of other planets is revealed by the spectroscope and appliances of science, and that thus we discover an exact identity of composition between our world and the distant stars. What if it does?—but it don't. Are all the lines and shades of the spectra accounted for? And if they are, were there elements in the sun unknown to that chemistry which is of the earth earthy, would we able to recognize thier nature?

Do these ponderous theorists, who dry the suns of the vast universe up into cheerless moons, realize that the infinitude of space is a "Field of the Cloth of Gold," made brilliant with burning suns, and that the constant loss of such an immensity of caloric leads them into a physical problem regarding heat, which no mortal mind may solve? There are no known vacant corners of the universe; and there can be no destruction of caloric, and the final result of this tremendous loss of heat by the fiery suns might establish that balmy equilibrium which would know no frigid Uranus or ringed Saturn, or cloudless moon! Truly a millenial reign.

There are such a multitude of questions and problems associated with these subjects that a short article seems almost missionless. Our only aim is to suggest a due regard for the impossibilities in these vasty deeps of theory, and a proper respect for the geological specimen which Moses brought down from Sinai.

Before closing, I wish to ask a question somewhat foreign to the above text. No one can answer it better than an evolutionist. How is it, if the conflict theory developed species, that during the tertiary period the world was almost exclusively populated by fierce animals, with "survival propensities," while in the posttertiary we have the hornless horse, ye gentle ass, the meek sheep, and the slow-paced cow?

Again, if the "substrat" of the earth is granite, and countless ages of water wear have deposited this granite in the bottom of former seas, as sediment, how is it that these depositions turn up chalk, limestone, sandstone, and a half-dozen non-igneous varieties, in which the actual chemical as well as molecular differences are great?

E. W. Fish.

Physiology, Microscopy, Ekc.

THE BLOOD.

From the time when the fluids of the body were classified as "Blood, Phlegm, Bile and Black Bile," down to the present, the composition and office of the blood have furnished a fruitful field for the careful study and speculation of the physiologist. Since the discovery of the blood corpuscle in the frog, by Swammerdam in 1658; in the hedgehog, by Malpighi in 1661; and in man, by Lænwenhæk, in 1673, through the agency of the microscope, no morphological element of the body has received greater attention.

The sanguineous fluid, which to the naked eye appears so homogeneous in structure, and presents such a brilliant hue, when examined critically, presents a very complex structure. Not only is it found to be composed of a number of characteristic and exceedingly dissimilar elements, but even its color is found to be variable and fallacious.

Examination of a drop of freshly-drawn blood under a microscope, shows it to be composed; first, of a colorless, transparent liquid, called plasma, or liquor sanguinis; second, floating in this plasma, a large number of oval, round, or discoidal bodies, called blood-cells or corpuscles. It is to one class of these corpuscles that the color of the blood is due; but, under the microscope, this color is not only found to be a pale yellowish instead of crimsonhue, but the color is also found to vary according to the focal adjustment of the instrument, and to deepen in the center or at the edges, according to focal range, the nucleated appearance being an optical illnsion.

In the annexed diagram, Fig. 1, are shown the two classes of cells known as the white and the red.

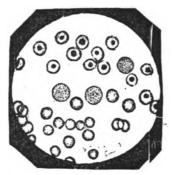


Fig. 1. Blood-cells. 600 Diameters

In the lower field the center of the corpuscles appear light or transparent, and in the upper portion dark, according as the focus of the instrument is adjusted.

It is this phenomenon which gives the corpuscle the appearance of being nucleated, which is the fact only in the blood cells of some of the lower animals, or during fætal life in human beings. Near the center of the field are seen three bodies somewhat larger than the rest, and presenting a less homogenous structure. These are the white corpuscles, less abundant than the red, in the healthy fluid, being increased in proportion in certain diseased conditions.

The shape of the red blood-disc is that of a double concave lens. The annexed diagram, Fig. 2, illustrates their form.

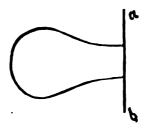


Fig. a. Diagramatic Section of one-half of a Blood Corpuscle.
 Stricker's Manual of Histology.

Revolution of the loop or curve around the axis, a, b, will give an idea of the form of the corpuscle.

These saucer-shaped cells, as they have sometimes been called, may also be seen standing on their edge, super-imposed, and adhering together like roleaux of coin, (Fig. 3). It is supposed that this formation of roleaux does not occur in the blood vessels. Its appearance under the microscope is, according to Robin, due to an exudation of adhesive substance from the corpuscles, which takes place very soon after they leave the vessels, and which sticks them together.



Fig. 3. Red Blood Corpuscles.*

For sometime previous to 1861, the idea that the red blood-disc had cell, wall, and nucleus, obtained very general credence, but after it had been demonstrated that a cell wall was not a constant constituent of the cell, it was also shown that the red blood cell of man and mammals was also desitute of a nucleus; the nucleated appearance shown in Fig. 3, being altogether fallacious and due to causes already referred to.

THE FORM AND COLOR OF THE RED BLOOD CELL* has already been referred to, the color being due to the presence of hæmoglobin, the red color being seen under the microscope only when large numbers of cells are super-imposed on one another, individual cells appearing of a pale yellowish hue.

THE SIZE OF THE DISC is given by Welcker expressed in millimetres; diameter of disc 0.0074 ($=_{3}\frac{1}{437}$ in). Greatest thickness of disc 0.00190.

*Stricker.

IN NUMBERS the red corpuscles are estimated as 5,000,000 in a single cubic millimetre of healthy blood. Alterations in the form, size, and general character of the red disc arise from a great variety of causes in the vessels, during both health and disease, and have also been induced by experiments with a great variety of agents.

Perhaps the most remarkable and characteristic changes are those produced by electricity. The annexed diagram, Fig. 4,* d



h

Fig.4. Changes in Red Blood-cells produced by Electricity. illustrates a succession of these changes.

Alexander Rollett thus describes the effect produced:

The circular disc-like corpuscles (Fig. 4, a), in the first instance present one or two projections at their borders, and these gradually increase in number to three, five, or more. I have named this form the roseate form (Fig. 4, b); it passes gradually into the mulberry form (Fig. 4, c), which can always be produced at will by the discharge. To this succeeds a stage in which the processes become pointed, so that the corpuscles assume more the form of a paradise apple (horse chesnut), (Fig. 4, d). Lastly, all the spikes are withdrawn, and a colored corpuscle results, (Fig. 4, e), which then loses its color, and a smooth, colorless body is left, (Fig. 4, f), that long remains in the fluid in an unaltered condition*

Cells very closely resembling, especially the first four of the diagrams in Fig. 4, may be found circulating in the vessels, apparently undergoing a process of retrograde metamorphosis. to the origin, office, and final destination of the red blood cell, we shall leave that to be considered hererafter, designing at present to deal rather with their physical attributes

These red corpuscles constitute about one-half the volume of healthy blood; they have about the same consistency as the plasma, with greater specific gravity, are very elastic, accommodating themselves to the dimensions of capillaries considerably less than

*Stricker's Histology-p. 227.

their own diameter by becoming elongated; resuming their usual form as they escape into larger channels.

THE CHEMICAL ANALYSIS OF THE RED CELLS, according to Hoppe-Seyler reveals the presence of homoglobin, with traces of albumen, cholestein, protagon, and phosphate of potash, while other experimenters claim to have discovered fat in exceptional cases.

The chemical analysis of the blood must give varying results, according to the condition, age, and sex of the individual from whom the specimen has been obtained, although in healthy subjects the variation is within narrow limits.

Attempts have also been made to analyze the gases of the blood, upon which some writers lay so much stress. Here again the result will depend upon many conditions, besides the care and accuracy of the experimenter, and the perfection of apparatus. It is interesting to note, what it is unnecessary here to record, viz: the theories that have been from time to time entertained regarding the structure of the red corpuscle. I have endeavored to give here the views which seem to be most commonly entertained by prominent histologists, and which seem most rational from the evidence adduced, although some prominent writers dissent therefrom. For example, Bennet declares* that he has feequently punctured the membrane of the red bloodcell, and seen the contents escape.

J. D. Buck.

Proceedings of Societies.

AMERICAN INSTITUTE OF HOMŒOPATHY, TWENTY SXITH SESSION.

It is neither possible nor proper for us to cumber our pages with the detail of proceedings of this interesting meeting. Those who desire to get a full report, will find it in the annual publication of the institute.

Through the kindness of the secretary, Dr. McClatchey, we are *Text Book on Physiology.

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in possession of advance sheets, from which we are enabled to collate the most important features of the proceedings.

Dr. J. P. Dake, of Nashville, presented an elaborate and able essay on the subject of systematic provings by a College of Provers, to be centrally established, and to be under the control of properly qualified medical men; the provers to be medical students, male and female.

DR. T. C. DUNCAN, of Chicago, said that the scheme unfolded in the paper was a grand one, but he regarded it as for the future He thought, however, that the object might be approximated, if not accomplished as thoroughly, by provers scattered throughout the country. If this were done, the symptoms could be verified more carefully than in a college of provers, and then we would know that they were genuine symptoms. If this Bureau would undertake the work, and would lay down specific rules for its carrying out, they would then accomplish something.

DR. PEMBERTON DUDLEY, said Dr. Dake has taken hold of this subject in just the right way, and while there may be a difference of opinion regarding the plan presented, so far as its availability is concerned, yet few will deny the force and value of the points the writer has made. I have never yet grown enthusiastic over any of our provings as they at present stand. In fact I have scarcely been able to rejoice at the extent of our Materia Medica, as it has been extended during the past few years. As an illustration I would cite the appearance in one of our best journals recently of the provings of a number of drugs made in each case by a single individual; the simple record of the effects of a single dose, with not a word said regarding the age, personal chara cter or reliability of the prover, not a word of evidence afforded as to whether the symptoms recorded were the actual effects of the drugs, or whether to a greater or less extent the effects of a power ful imagination acting upon an excitable nervous temperament. It is highly probable, too, that all these symptoms will be inserted, without further evidence as to reliability than that presented in this single publication, in the next work on Materia Medica. There is one way in particular, in which such systematic and scientific investigation of drug action can be made very useful, that is not generally thought of. We have recently, in the records of the trials of certain medico-legal cases, been pained to

notice the apparent want of knowledge of the positive effects of drugs. Now, after this College of Provers has been once established, and its operations carried out, their evidence would be a standard authority in these cases.

DR. S. R. BECKWITH. I want to see a special committee appointed with authority to memorialize Congress at its next session to prepare such laws as may be necessary to carry out this plan into prompt operation. There is no school of medicine but believes in the proving of drugs upon the healthy. Pareira regards this method as an axiom. We will not be alone in this matter, but we will simply be the pioneers in the work. I have no doubt but that if a half-dozen energetic men were empowered by this Institute to endeavor to have a provers' college established in connection with the Smithsonian Institute, and Congress were asked to furnish money to put it into operation and carry it on they would be successful.

DR. G. W. BOWEN, of Fort Wayne, Ind., liked the idea, but feared the expense would be too great. We should submit ourselves to the judgment of some man like Dr. Hering, who has devoted his life to the Materia Medica. He thought it would take a long time to prove and reprove all the drugs of the Materia Medica. He would give twice as much as any man who possesses double the means he has, towards establishing this college.

DR. S. LILIENTHAL declared himself to be in favor of this plan. Although an old man, he thought himself good for ten years, and would give one hundred dollars a year for this work if necessary. He had a proving which he could not publish because of its magnitude, and Prof. Allen had one which no one cares to publish on account of the cost. Now for the publication of these provings we want money, and that money can only come from the institute by the subscriptions of its members. Let us not wait fifty years for the establishment of this College of Provers.

We have already made a small beginning in New York, under the leadership of Prof. Allen. But let us take up some remedy, as suggested by Dr. Dancan, and prove it by provers scattered all over the land. If this course is carried out and persevered in, we will get many valuable provings.

Dr. T. L. Brown, of Binghamton, N. Y., said he had been

converted to the opinion held by Dr. Dake. He had already offered to be one of the number who will give a certain amount every year towards the enterprise.

DR. T. F. ALLEN, of New York, said: I came on to listen to Dr. Dake's paper, as I knew we should have a good suggestion from him. I suppose it will be acknowledged by every one in this Institute, that Hahnemann was the father of Homœopathy. But Hahnemann had not twenty thousand dollars a year-he had only enthusiasm, and that is what we want now. In the last number of the Practitioner, an English old-school journal, a writer says that to Hahnemann is due the honor of having introduced physiological provings into the Materia Medica; and he goes on to say that there is no doubt that the law of similia similibus curantur is a fundamental law, but he says it is not a universal law. That is the ground he takes. Now, gentlemen, we are ten years We are old fogies. There is not a Universibehind the times. ty on the Continent of Europe that has not a department for physiological provings of drugs upon animals and man. pushing this matter of proving drugs in the old school in such a way as should put us to the blush. It is not three weeks since I was reading a proving of Saponine, which has opened to us a great field which had been closed for many years.

These drug provings should be connected with the chair of physiology. No man can give a thorough explanation of provings unless he be a thorough physiologist. We have tried to start this matter on a small scale, in connection with our hospital in New York. We have been making some experiments with Belladonna on animals, cutting the sympathetic nerve; but, in the nature of things, these have been unsatisfactory. One word in regard to giving all provers the same dose repeated at certain specified intervals. Last winter I gave a preparation of Lachesis 30th to forty or fifty students, none of them knowing what medicine it was, or the size of the dose; but of these there were but five who had identical symptoms. This shows that the dose should be graduated according to the susceptibility of the individual.

In regard to the establishment of a National College of Provers, I think it is very much needed and greatly to be desired. At the same time I think it cannot be done except in connection with the chairs of physiology in our colleges.

DR. I. T. TALBOT. We have got to a subject that has struck the great sympathetic nerve of our whole science. We have touched the very basis of Homoopathy at the beginning of this session. At the time this Institute was first established, there were a few earnest and determined men who took up this work, and the published work of such men as Hering, Williamson, Neidhard, Payne, and others, who constituted the old "Central Bureau," made the first volume of the Transactions of this Institute by far the best volume ever issued. It speaks well for this Institute that we have thus early and earnestly taken up this important subject. It speaks well for its future. The idea of my friend Dr. Dake is a glorious idea, and his plan a grand one, if it can be carried out. And I approve most heartily the view of Dr. Beckwith, that we go to Congress and ask them to establish such an Institution. The American Institute of Homeopathy is now entering upon a more glorious existence. Before the close of this session I shall suggest a plan by which this Institute shall be incorporated by the United States government, and have a right to raise a fund by the contributions of its members and others to carry out its great purposes.

Dr. Talbot read the paper of Dr. William E. Payne, of Bath, Maine, entitled "Is the re-proving of the Materia Medica possible under existing circumstances? And if so, can the great object of purifying it be attained in the way proposed by the advocates of re-proving?"

Dr. Payne's paper expressed the view that the Materia Medica could be better purified by systematized clinical verification of symptoms than by re-proving of drugs, and in order to do this work effectually a complete Materia Medica should be in the hands of every practitioner, who should regard it as a sacred duty to assist in the work.

DR. G. W. SWAZEY said this was a most important subject, and that it should be thoroughly discussed. He was of the opinion however, that there was a tendency in the remarks made, to undervalue the provings we now have. He hoped the whole matter would go into the hands of a committee for careful reflection. The great trouble with our provings is their prolixity. We are all aware that there are better methods of presenting subjects than there once were; and it is possible that the Materia Medica may

be presented in a better shape than heretofore. Some time ago the lamented Dr. Flagg was appointed to present typical illustrations of the effect of drugs upon the parts and tissues. Dr. Flagg made an outline sketch of the body, and divided it into regions. From this figure he projected lines, which indicated the direction of the action of remedies. Now it seems to me that if some such plan were to be properly elaborated, it might be made a valuable means for studying the Materia Medica.

Dr. H. B. Clarke, of New Bedford, presented a paper on Phthisis Pulmonalis.

Dr. LILIENTHAL would like to have an accurate definition of phthisis. He thought too much latitude was allowed in defining that term.

Dr. Burgher supposed the word had been used in its general acceptation.

Dr. LILIENTHAL regarded it as a disorder of nutrition, affecting assimilation and finally going to the lungs, but it does not begin there. He regarded phthisis in its first stages as a perfectly curable disease, and therefore he wanted accuracy of nomenclature

Dr. Marix, of Denver, Col., said he did not wish to be discourteous to Dr. Clarke, yet entered his protest against the treatment of phthisis, or any other disease, with such compound remedies as the acetate of morphia and ipecac, in any stage whatever, and against the topical application of croton oil as detailed in Dr. Clarke's paper.

Dr. Dake said that Dr. Clarke merely used these as palliatives, not as remedies. He was not present to defend his paper.

Dr. LILIENTHAL.—The Institute, if it sanctions such treatment, will have no right to say how any man shall practice.

Dr. Cate.—It is well known that there are some men who imagine that there is but one road to any given place, and that is the road they travel by. I suppose every one here has met cases of phthisis and of other diseases where a cure was impossible. Nor is there anything wrong in resorting to palliatives in such cases to relieve the patient of some measure of suffering.

DR. R. R. GREGG.—This disease has been palliated for a hundred or more years as we know, and yet how many die of it. I think we have palliated long enough.

Dr. T. L. Brown related the case of his wife's father, an old

man, of good habits, who drank plentifully of tea and coffee. He thought himself consumptive, and had been pronounced so by several physicians. He had had several hemorrhages, a bad cough with expectoration, and was at times very weak. Through the force of circumstances he came to live with Dr. Brown, from whose table had been abolished all stimulants, and he was forced to do without his tea and coffee. He also rode with the Doctor from three to five hours daily, in the open air. He got plenty of milk, eggs, oysters, and vegetables, and canned fruits. No tea, coffee, spices, or meats. His hemorrhages have stopped, he has no desire for stimulants, and he is now a healthy, hale old man.

Dr. Von Tagen related a case showing how a spontaneous cure of far advanced phthisis might take place. It was that of a distinguished naval officer, who in early life had tried every thing medicinal to be relieved, but had abandoned medical treatment and taken to the sea. He died many years afterwards, and he, Dr. Von Tagen, assisted Dr. Kitchen at the autopsy. The body indicated anything but consumption; he weighed nearly 190 pounds. In the upper portion of the left lung was a large cicatrix, of very dense structure, covering a surface about as large as the palm of the hand. He judged from its size that the abscess was about the size of a large fist.

DR. GOTTSCHALK of Providence, R. I., had in his younger days made about 150 autopsies of soldiers. Of all these he found only four that had perfectly healthy lungs. In most cases there were large or small cicatrices, proving that ulceration had at one time existed there. In some cases abscesses existed at the time of death; in others tuberculous deposit had taken place, like charcoal points, scattered through the lungs, like dark sand. He thought the Institute should establish a department of climatology, for the benefit of the sick, more especially with the view that physicians might know just where to send patients.

DR. L. PRATT of Wheaton, Ill., thought the results of treatment would be better if we had a better knowledge of the anatomical seat of action, and kind of action of our remedies. He related a case of a woman who ten years ago, had all the evidences of consumption. She was told to be out in the air as much as possible, and to take large quantities of white sugar at each meal. She did so and is to-day well and hearty.

Dr. Swazey said it was refreshing to him to hear cases of cur

related, without too much stress being laid on the remedies which have been used. Dr. Brown has given us a case in which hygiene had a large share in the cure. Of course most of us have had similar cases. He was far from disapproving the use of medicines in these cases, but he placed more reliance on other means. Some of the cures reported were due to what might be called the tenacity of life of some individuals. He had a patient who failed gradually from phthisis, and died after a few years. Autopsy disclosed that there was none of the left lung whatever, excepting a trace perhaps, and the right lung was useless excepting a portion of about the size of a man's fist. This shows how life is held on to in some cases under proper hygienic measures. In these cases he discourages the use of animal fat. He attached great importance to the diet.

DR. GEORGE A. HALL used farinaceous food and fruits, totally abolishing animal food. He admitted that phthisis was an opprobrium medicorum. He acknowledged the value of hygienic measures and regarded them as the only specific, but thought also that medicinal means should not be neglected, and that if we explored our Materia Medica we would find remedies that would be of avail.

DR. CLEMENT PEARSON, of Cleveland, had no doubt that the cases reported by Dr. Clarke as cured were so cured, and that the symptoms he relates existed, and yet there might not have been a particle of tubercular deposit. He had been surprised that none of the gentlemen who had related cases had referred to the state of the pulse, which he regarded as the only certain index of a tubercular condition of the lung. "Bring me a patient with hectic fever, a cough, with purulent expectoration, emaciation and night sweats—all the symptoms in fact of tuberculous disease of the lungs-and a pulse of 70, and I will assure you there is very little danger if the patient is properly treated. On the contrary, when a patient comes into my office and says 'Doctor, I have nothing the matter with my lungs, but my throat is a little sore and I have had an irritation there for some time,' and I find this patient with a cough and some other symptoms, and a pulse of 120 or thereabouts, I am strongly led to believe there is danger. just because the patient assures me there is no disease of the lungs and, secondly, because of the pulse." He had very little confidence in the line of treatment laid down by Dr. Clarke. He used the 200th attenuation.

DR. E. C. FRANKLIN thought the medical treatment of phthisis should receive our earnest attention. It is the most important disease that falls under the attention of medical men. He was much pleased with the remarks of Dr. Pearson when he spoke of the pulse in phthisis, and also by the remarks of Dr. Gottschalk. But there is one point that has not been referred to, which, he believed, defined phthisis pulmonalis or tuberculosis of the lung—the character of the sputa thrown off from the mucous membrane of the bronchii, as revealed by microscopic examination. He had heard many remedies mentioned, but no indications for their use had been given and he had learned nothing from that. One gentleman cured a case by giving two meals a day, another by hygiene, another by abrogation of meats, and another by the free use of meats. Now he had not got at the pith of the treatment from all these remarks. He had cured cases with the characteristic sputa without medicines or strict dietetic rules, simply by the use of the lung. He believed more people died of this disease in conse quence of disuse of the lungs than from any other cause. He believed air to be the proper stimulant for the lungs, as exercise is for the muscles. Persons with tendency to lung disease, or having lung disease, don't like to take a full and deep inspiration, and by this disuse the disease grows on them stealthily as it were, and they don't take in enough oxygen to serve their purposes. He then related a case in which the chest of a consumptive woman increased over 31 inches in less than three months, by systematic free respiration of atmospheric air, and she now has a fair share of health and weighs 15 or 20 pounds more than she did.

DR. BURGHER stated that he had prepared a paper on "The Regular and Systematic Respiration of Pure Air as a Prophylaxis of Phthisis." He used a small glass tube, directing the patient to breathe through it one or two minutes at a time, three times a day, drawing as full a breath as possible, increasing one minute each time until the patient gets to using it fifteen or twenty minutes and then gradually decreasing to one or two minutes again By this means a contracted chest can be increased from one to three or four inches in three months.

Dr. E. M. Kellogg then read his paper on "Comparative Mortality under Homœopathic and Allopathic Treatment in New

York, Boston, and Philadelphia." A table drawn up by the Doctor exhibits the following results:

Comparative Mortality in New York, Boston, and Philadelphia.

ALLOPATHIC.				
City.	Year.	No. of Physicians.	No. of Deaths.	Ratic.
New York	1870	944	14,869	15.75
		984	15,526	15.78
Boston	1870	218	3,872	17.76
"	187 r	233	3,369	14.46
"	1872	2 33	4,575	19.63
Philadelphia	1872	65 5	12,468	19.03
Total		3,267	54,678	16.73
HOMŒOPATHIC.				
City.	Year.	No. of Physicians.	No. of Deaths.	Ratio.
New York	1870	143	1,287	9.00
	1871	156	1,243	7.97
Boston	1870	40	402	10.05
••	1871	44	363	8.26
••	1872	54	446	8.25
Philadelphia	1872	168	2,162	12.87
Total		605	5,903	9-75

Dr. Danforth, of Chicago, presented a paper on Galvanopuncture for Ovarian Tumor.

DR. E. C. FRANKLIN being called upon to speak on this subject, said he, Franklin, was, so far as he knew, the first surgeon in this country to perform this operation on an ovarian tumor. He was led to it through Dr. Danforth's operation for hydrocele. The lady was opposed to the ordinary operations, and so he proposed to use this means and did so. He made three applications, going very cautiously, as it was new ground, but gaining courage at each application of the battery. The case got along very well, and the woman went home cured. It was an unilocular cyst so far as he could judge.

Dr. WILLIAM OWENS, of Cincinnati, wanted to know what became of the albumen contained in this cyst.

Dr. Franklin said he could not give a positive answer to this question; he had simply reported the facts so far as he knew them. He had used a Faraday battery and two needles, confining the tumor within the circumference of an iron ring.

DR. J. G. GILCHRIST, of Tidioute, Pa., reported a case of a young woman who had been under allopathic treatment for five or six years, for what was called an ovarian tumor, situated in the left iliac fossa. Had given up all treatment for a year when she came under his care. Symptoms: very marked constipation, bowels entirely inactive; shortness of breath and difficulty of breathing during menses; menses anticipating, scanty, dark-colored, and offensive, accompanied with sharp cutting pains, which caused her to cry out as in agony. Gave colocynth 2°, a dose a week for a month prior to menstrual period. At period sufferings were worse, and there was no flow. Then gave a single dose of col. 1^m after menstrual period, with mitigation of suffering. Then one dose of col. 100^m, when the tumor began to diminish. It is now five months since treatment commenced, and the tumor has entirely disappeared.

DR. R. GREGG has seen as a result of local treatment of uterine diseases, that as the uterine trouble got better, lung disease set in, in persons with weak respiratory organs.

Dr. J. B. Owens reported the case of a young girl having the same class of symptoms reported by Dr. Gilchrist. The abdomen was very much enlarged, and she gave evidence of having a tumor. She was very much constipated. He gave her Sulph. 1^m, and a week afterwards another dose. On the twenty-first day her bowels moved freely, she passed an enormous quantity of fæces. Many of these so-called tumors are merely collections of fecal matter in the bowels.

Dr. GILCHRIST assured the Institute that the case he related was one of tumor, and that he was competent to diagnose a tumor.

Dr. Owens said that he did not mean to assert that it was not a tumor.

Dr. R. Ludlam did not agree that these tumors were so easily disposed of by medicines. The greatest care should be exercised in making up a differential diagnosis of all sorts of abdominal tumors, particularly in females, and especially so when there is any idea of reporting the cases to the Institute, the auxiliary societies, or the journals, because it is so easy for any of us to be mistaken and to attribute the disappearance of a tumor said to be uterine, or ovarian, to remedies, when it might have been no such tumor at all. He believed that many cases of endocervicitis were caused

by the pressure of the uterus against the floor of the pelvis, when the patients are moving about, riding, walking, or dancing. Now the best chosen remedies, in such cases, locally or internally applied, will often have no effect, if the malposition is not corrected and the uterus suspended, until the engorgement has had a chance to pass away.

Dr. N. F. Cooke, of Chicago, introduced the following preamble and resolutions:

Whereas, It is especially the province of homeopathic physicians to occupy advanced ground on all questions relating to the physical amelioration of the human race; and

Whereas, There exists in the criminal and medical codes, an expression which by implication sanctions the commission of crime—that is to say, the words "criminal abortion;" and

Whereas, The artificial induction of abortion is, under any and all circumstances, the taking of human life, and therefore criminal:

- 1. Resolved, That the American Institute of Homœopathy hereby expunges the word "criminal" from its medical code, wherever found as qualifying the word "abortion."
- 2. Resolved, That the American Institute of Homœopathy hereby invites the co-operation of the American Medical Association, in the endeavor to obtain the obliteration of the improper distinction wherever it now exists.

Dr. Cooke claimed that the passage of these would close the door now wide open for the commission of abortion. He was of the opinion that cases which now, according to the books, admit of the induction of premature labor, and which, he said, were extremely rare, should be left to go on to term and treated by Cæsarean section. He thought that the systematic disorders of pregnancy, most of which were amenable to homeopathic treatment, were made the excuse for the commission of numerous abortions, and he wanted to have this stopped.

Dr. McManus objected to the last resolution inviting the cooperation of the American Medical Association.

Dr. I. T. Talbot objected to abortion as much as did Dr. Cooke, still he doubted the good taste of the resolutions. We might all think it the special province of homoeopathic physicians to occupy advanced ground, but it was in bad taste to assert it. He did not

see how the use of the words criminal abortion sanctioned crime. It has been agreed by all societies far and near, that if a jury of physicians decide that premature labor should be induced it is right to do it. He did not think it would be in good taste to say that it was not. It has been made a crime in the eyes of all our societies for a physician to induce abortion on his own responsibility. Again there is no use of the words "criminal abortion" in our medical code. The words are "criminal acts." On motion of Dr. Talbot, the preamble and resolutions were laid on the table.

The President read a telegram he had just received from Boston, announcing that the Massachusetts Medical Society had that day expelled seven of its members for practicing homeopathy. The announcement was received with great laughter and applause, and Dr. Talbot was called to the platform, where he was greeted with great applause.

DR. TALBOT said: Mr. President, criminals are not generally received in this way. This has been a question not of days or weeks or months with us, but of years, and to-day's work in Massachusetts only exhibits another phase of the matter. We have not been expelled from an allopathic society, for, if the old Massachusetts Medical Society were an allopathic society, not one of us would have remained with it for a day. We are standing up for our rights merely. The men who are in the majority have been trying to take those rights from us-rights that have been guaranteed and strengthened from time to time by the commonwealth of Massachusetts; and we have given these men plainly to understand, that we will not submit to have our rights taken away until compelled by the highest powers of the State. Dr. Talbot then gave an account of the action of the Massachusetts Medical Society, the "Trial," &c., which from time to time we have laid before our readers.

DR. L. H. Willard, of Pittsburgh, read a paper on Necrosis. DR. L. H. WILLARD was in favor of an early and free use of the knife in suppuration and abscess of bone, thus liberating the pus and putting the parts in the most favorable condition for cure.

Dr. J. G. GILCHRIST said that if this was done the disease which had caused the pus still remained.

Dr. WILLARD said the knife was only one of the means of

cure. The pus must be liberated and allowed free exit or it will burrow and do much damage. Homœopathic remedies may be used in conjunction with this treatment.

DR FRANKLIN thought the disease processes of nature were generally curative and should be understood as such. How often do we find a long and tedious illness culminating in the formation of an abscess and discharge of its matter and a restoration of health. If we let out this matter, we are assisting nature, hastening nature's cure. At the same time, he was of the opinion that every care should be exercised in the selection of remedies to promote a cure, and that when we can get the characteristic symptoms, we can prescribe and get good results.

DR. GILCHRIST believes homoeopathy can cure everything or it can cure nothing. He does not believe in incurable diseases. Thought scirrhus and tuberculosis could be cured if we could get the homoeopathic remedy.

DR. Von Tagen instanced common bone felon. He had often arrested it by a free incision, from which there was scarcely anything discharged but blood, perhaps a drop or two of pus. In his experience he had never been able to arrest a felon when it had had a fair start, by means of homœopathic remedies.

DR. J. P. DAKE thought that gentlemen should be very careful to define their opinions with great accuracy, for fear that wrong conclusions should be derived from what they said, and homeopathy be injured thereby.

DR. DUDLEY thought that when he gave hepar or silicia to hasten suppuration, he did not give them in accordance with the homeopathic law, and that their action was not homeopathic. He gave them to hasten suppuration, to promote disease, and thereby bring about a curative result. It was "homeopathy misapplied" to call such use of medicines homeopathic.

The paper read by Dr. Willard, on Necrosis, contained an account of a case in which a considerable portion of the tibia was removed, the periosteum having been destroyed, and yet after a time, bony formation took place, at first cartilaginous and afterwards ossific, so that there appeared to be a complete re-formation of the missing portion of the tibia, the new part being solid and strong.

DR. S, R. BECKWITH called attention to this statement. He



asked Dr. Willard how he accounted for the formation, inasmuch as the periosteum was, according to his statement, destroyed.

DR. WILLARD said he could only relate the fact. Dr. Willard's statement was corroborated by Drs. Cowley and McClelland

The question of the reproduction or regeneration of bone was, then fully discussed by the surgeons present, Drs. E. C. Franklin, S. R. Beckwith, McClelland, Willard, Gilchrist, Schneider, Von Tagen, Pease, and others. The summing up of the discussion amounts to about this, that most of these gentlemen had seen cases which had caused them to doubt whether the osteogenetic property brought into use for the reparation and restoration of bone, lay exclusively in the periosteum, and that the old notion that if the periosteum were destroyed, the bone could not be reproduced, is not correct.

Dr. E. C. Franklin objected to the indiscriminate use of calendula. The results of his own observation were that calendula had no influence over inflammation, and where inflammation has gone on to disintegration and breaking up of soft or hard parts, calendula was worse than useless. On the contrary, staphysagria was suited to these conditions, especially when bony tissue is involved. He had used a lotion of staphysagria for suppurative processes, and it always gives good results. He used calendula for cuts, but was of the opinion that he got just as good results from plain water-dressings as from calendula lotions. He used staphysagria in almost all cases where calendula has been recommended in the books.

Dr. Emma Scott read her paper on Hygiene of Infants

DR. CHASE said she did not have babies washed on the day of their birth, but had them well annointed with lard and rubbed clean with cloths. She had them washed carefully on the second day, and then waited a day or two, getting them gradually accustomed to being washed. By this means shock to the system is avoided. She had seen deleterious effects from too frequent washings of infants.

DR. GOTTSCHALK spoke of Parisian nurses of large experience, who always have babies washed as soon as born, and every day thereafter without harmful results. In regard to feeding babies by hand, he preferred good cow's milk to anything else, with a

little sugar to it, and perhaps a little salt if the casein tends to coagulate,

DR. WILLIAM OWENS, of Cincinnati, thought this question of feeding babies a very bothersome one, it is such a difficult matter to get food which the babies can digest. Arrowroot is innutritious; milk often passes from the bowels undigested in spite of all you can do, and whether you give it boiled or raw. For ten or twelve years past he had used Graham flour made into a thin gruel with sugar and a little salt, and taken through a nursing bottle. If there be tendency to irritation or looseness of the bowels, he uses toasted aerated bread, boiled forty minutes, strained and sweetened. With these he generally has no trouble with handraised babies, and they are fat and hearty, and have little or no trouble from summer complaint.

Dr. J. P. Dake had often seen children suffering terribly from colic and constipation, in consequence of the breast-milk not agreeing with them, and even going into convulsions. Sometimes the milk will not digest, and curds form in the stomach as hard as a bullet. The grand-mothers have a strong prejudice against taking the breast-milk from the child, but when he finds the above state of things, he invariably has the child weaned and supplied with good wholesome food. He did not like bread, barley, or rice-water. He used sugar of milk to sweeten infant's food.

Dr. D. E. Holl thought that good breast-milk or good cow's milk, was the best food for infants when well; but when the stomach and bowels get into an inflamed or irritable condition, as they do in summer sometimes, he cut off the milk for a time, attacked the disease with medicines, and when the child was well again he returned to the milk.

Dr. Swazey always discouraged the use of milk diet for infants whenever he could. He gave usually gruel made of riceflour with gelatin added, and then enough to be taken from a nursing bottle. The mothers prepare the gelatin of about the consistence of jelly, and keep it in the refrigerator. They add it to the rice-gruel in quantities to suit. This works very well with the babies. He knew of several babies who were raised on gelatin almost exclusively. He was opposed to the use of animal food for babies.

Dr. LILIENTHAL thought that mother's milk was the best food

for infants. Bring up your daughters in a proper way so that they are healthy and they will have good milk for their babies.

DR. HUNT said he had been in the habit of giving children an egg beaten up in a glass of water, with a little glycerin and sugar. This is meat and drink for the babies, and agrees with them very well.

- Dr. D. C. FAIRBANKS had had cases where there was a persistent sour stomach, which no medicine he had used would stop, until he took the child from the breast and furnished it with other food. In regard to washing babies, he agreed with Dr. Gottschalk, and had seen no bad results from washing when judiciously done. But washing can be injudiciously done, and he believed that bad cases of nasal catarrh arose from it.
- DR. F. R. McManus did not believe there was any universal article of food for babies. Their diet must be regulated by circumstances. Where the child is disposed to diarrhoa he gives the preparation of rice-flour recommended by Dr. Swazey. When constipated, he makes bran broth—a teacupful of bran to a quart of water, with milk, if deemed advisable. When the bran diet does not relieve the constipation, he gives a dose of Sulphur 3d; and if that does not relieve in twenty-four hours he gives a second dose, which always succeeds. Related the case of a lady who was invariably thrown into violent spasms upon taking even a very small quantity of milk. Had often thought about babies' convulsions and milk since he knew of this case.
- Dr. C. Pearson highly recommended sweet whey. He knew of nothing that would correct indigestion in babies equal to it. Another favorite article of baby's diet was flour, boiled for four or five hours, in a lump, and then shaved down and made into victuals. He had had a child under his care, who was affected by milk much as the lady was whom Dr. McManus referred to. Cow's milk when given to babies, should be warm from the cow.

DR. JAMES B. OWENS.—When a child is running down, becoming emaciated, with loss of appetite and indigestion. and no medicine seems to do any good, take a nice sweet piece of pickled pork, boil it thoroughly until very soft, and let the baby

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eat it, giving small pieces at a time. They will eat it with a relish, and soon begin to improve.

DR. R. LUDLAM said that a friend of his, who had a large experience with babies, gives oatmeal boiled four hours, and after that a little milk, or condensed milk should be added. In regard to the white of egg, it is to be remembered that albumen will not dissolve in water unless a little salt be added. He had some confidence in Graham flour, and in the flour as used by Dr. Pearson. He also used wheat flour boiled for three quarters of an hour, and then strained through a cloth, and fed to the babe out of a cup, or with a spoon. Much salt should not be given to babies. He knew nothing about pickled pork. Cow's milk should not be taken from any cow, and he agreed that it was best when warm from the animal. A physician he knew of was in the habit of prescribing pepsin for indigestion of infants, two or three times a day. Dr. Ludlam had used boiled carrots.

PROCEEDINGS OF THE HOMŒOPATHIC MEDICAL SOCIETY OF OHIO.

SECOND DAY'S PROCEEDINGS.

Dr. J. D. Buck, from the Committee on Physiology and Pathology, read a paper on Matter, and Life in Living Matter, which was discussed at considerable length.

[For Dr. Buck's article see June number of the ADVANCE.]

DR. Lewis Barnes: In some respects I like the paper very much; it is a well conceived production, and is a very good statement of a certain theory, and I am in favor of the motion that has been made of receiving and putting it on file, and printing it; but I think the theory itself is totally wrong; I think that dead matter in which there is no life, cannot by any possible process of its own, convert itself into life either now, or hereafter; I do not think that dead matter can be made living matter, any way you can fix it. I think that dead matter itself is necessarily and of itself

dead, and whatever of life is ever connected with it is not inherent in it, does not result out of it, and is not the result of the action of it; in other words that dead matter can not be changed into living matter with protoplasm: Where then does life come from? There is but one single source of life, and that to my mind is a living eternal life, that never was dead, and consequently never was brought out of dead matter. How then can protoplasm or any dead matter ever put on the appearance of life? Why, here is a living power operating in this world in every nook and corner, at every possible point, and wherever matter can be so arranged that it can receive life and manifest life by the reception of this life process, a process not from the matter, the matter is not converted into it, but the life comes from the sources of life, and will come in wherever matter can be brought into a condition to receive it and manifest it. Now the germ of a human being is not an organism; the human spermatazoon is not life so far as you can see-Then what brings it into life? Why here is a divine power, a divine life that whenever matter is arranged in a particular way by its coming into it, you get an organism that it can receive, constructed from the life of the Eternal Being, and then follows the work of the atoms around it; then when all this is dissolved, that life that is capable of living in another existence beyond this, will go to that other existence and live there, not as matter, not as protoplasm, but as something coming from the Divine Being. I make these remarks because this subject has been discussed in our journals all over the world, and we must take either one side or the other; either matter is converted into life, or else it is not. say it is converted into life by the action of force, and what is force? Is it a property of matter, or matter itself, or is it a force that comes from the spiritual Divine Power, this something working in matter, arranging it? Is that what you call force? That is what I call force, and I think the law of force is, that there is no force in dead matter, pertaining to it and a part of it, is not and can not be.

Dr. E. C. BECKWITH: I wish to enter my protest merely that anything that looks like the Darwinian theory shall not pledge or compromise our Society; let the gentleman stand on his own ground; we have been charged as a society as given over to Dar-

winism; and I do not wish it to go upon record without protest. Dr. Wm. Owens: I think spontaneous generation the real gist of this paper—spontaneous generation or the evolution of life from dead matter. Now to the question as to where life begins, and how it is developed; that is the point the doctor arrived at to show the development of life in the organization of dead matter. It remains for the gentleman on the other side, to show there is a spirit in dead matter to organize it; it does not remain for the advocates of this theory to show that life is evolved from dead matter; that has been pretty well established by the experiments of Dr. Bastian in a large number of experiments, some of the most exhaustive that could possibly be adopted in which all the forces have been brought to bear to secure a satisfactory result. The advocates of this theory claim that it has been well established that a large number of spherules of animal life have been developed in the solution prepared by Dr. Bastian, who in his experiment shows that heat was applied to the temperature of 400° Fahrenheit, and that life was developed in the solution in the course of a few days after the heat was removed. That there has been a spirit from some other source infused into inorganic matter to develop life must be shown by the advocates of that theory before they can successfully controvert the theory which has been attempted to be established by Dr. Bastian upon which this paper seems to have been predicated.

DR. LEWIS BARNES: That does not reach my point; the question of spontaneous generation is not the question. Suppose you can kill every particle of life in any substance and life should spring up again, what of it? Does that prove it came out of matter?

Dr. Buck: The point I intended to make is something like what Dr. Barnes has stated, matter of life and living matter. I have been endeavoring not to fix the boundaries between these, but to show the principles through which this process takes place. As to the force this matter exerts to convert into life matter, that will be the subject of another paper, and is not designed to be touched at all in the present paper.

DR. COULTER: I rise to express my satisfaction in listening to this discussion; I was highly pleased with the paper; I wish to say to you I like all this investigation on both sides; I was very

much pleased with Dr. Barnes' criticism on this paper; I think the paper deserves criticism, not taking it beyond criticism inasmuch as it is a question now agitating the whole civilized world, and it is one this society ought not to shirk from looking at, and I am very glad it does not. As to the remarks of Dr. Beckwith I would say we will all yet learn that we have to thank Darwinism for investigation, much as I differ with him, and I can't tell how much I do differ from him; and his theory as far as it goes should rest where Dr. Buck's paper rests. Then as Dr. Barnes says, there is a point beyond which we cannot go. At the same time all these fine scientific investigations deserve our attention and study, and the men who are thus laboring to bring out the minutiæ of the question, deserve a great deal of credit and respect; but this theory of supposing we can ever analyze this thing called life, is just as much as to suppose that we can analyze the Eternal Creator. We have all got to rest right there, on this great sea of life coming from the Creator. In my mind I am perfectly satisfied that all life comes from the Eternal Source of life, and that there is no life in dead matter; therefore, I arose simply to say I was deeply interested in this discussion, and I have no such fears as my friend Dr. Beckwith entertains in regard to Darwinism; it is not going to hurt us, even if we should know more about it.

DR. F. L. FLOWERS: I desire to make a few remarks, not so much touching the paper, as touching the general question. Now I have observed that very few men become Homœopaths at all but men of investigation, and I would go a good deal further; if we had more investigation we would have more Homœopaths; therefore, I conclude every Homœopath who adopts Homœopathy in principle is a man of inquiry. Then we are made up of a class of inquirers, and what are we inquiring after? We have a specialty, that of medicine, and we have that specialty to build up, and it behooves us to be very careful in falling in with those extreme ideas, unless the public should conclude we are a class a fanatics, running after every strange god, and the head and front of every strange proposition; the tendency of which is to damage our cause. The prominent idea of medicine is the cure of disease, and I have noticed in our papers too much of the dis-

position to stand out as loved inquirers after Darwin, and the peculiarities of theological ideas. Do not understand I have any objection to any Homœopath investigating these subjects; but I think we should have an eye strictly on the face, that we do not become worshipers of those other ideas; if we do, we lose our force on the main one.

DR. RING: I think all these remarks entirely uncalled for. Dr. Buck's paper contains some statements I should not wish to incorporate in a paper which I might, perhaps, write myself; but certainly his paper has been presented in a form in which we find the subject stated in scientific words. We have a class of scientific men whose duty and business it is to go into these subjects. We have no divine teachers of science: Dr. Buck has given us such a scientific statement, as he has been able to obtain from the works of scientific men.

The motion to receive Dr. Buck's paper for publication was put and carried.

Dr. M. B. Lukens, from the same committee, read a paper on Physiology and Pathology of Mental Action.

Dr. J. C. Anderson, delegate from the Union Homœopathic Medical Association of Richland and adjoining counties, was received.

Dr. Schneider, of Cleveland, presented the history of a case of removal of the inferior maxillary and the report of an interesting case of ophthalmic surgery, by Dr. C. H. Von Tagen, was received and referred for publication.

Dr. Blair offered the following resolution, which was adopted: WHEREAS, The custom of banqueting Medical Societies is an expense unnecessarily forced by precedent upon the members residing in the towns where the meetings are held; therefore,

Resolved, That hereafter this Society will not expect or desire local members, where its meetings are held, to provide any such entertainment.

Dr. Blair offered a resolution, which was adopted, providing that hereafter the time of meeting be extended to three days.

On motion, the paper of Dr. Von Tagen, on Ophthalmology, was referred to the Committee on Publication.

The President, Dr. S. S. Lungren, of Toledo, then delivered his

annual address. "Similia Similibus Curantur," he said, was something that could be grasped with the senses-some guide in the uncertain darkness of medical ideas; and experience had added to its strength, and it continued to stand alone the embodiment of truth. In less than half a century there had been an entire abandonment among the more enlightened men of the old school in medicine, one by one, of the ideas held by them as catholic. The abandonment of large doses of poisonous drugs had been forced by the resistance of patients, who had seen the marvelous effects of Homœopathic remedies, and it was now no longer necessary for a Homœopathic physician, more than another, to defend each day his peculiar principles. Public attention having been more and more directed to the system which professes to cure diseases with the least medicine and by a better method, the claims of Homœopathy were becoming recognized by the civilized world; colleges, dispensaries, journals, etc., were increasing, and better than all, the more intelligent people in each community were adopting the Homœopathic faith. This proud position was cause for congratulation, but there was much to accomplish in the domain of physiology and surgery; the last should be blended intimately with the Homœopathic system of therapeutics, for the speaker was convinced that the mortality after surgical operations had much decreased when the patients had been treated by the Homoopathic system. General pathology and pathological anatomy had been too little studied, and the symptoms observed during life had not been compared in many important cases with the appearances after death. It was not desirable to be a mere symptomist. Dr. Lungren regarded the question of the quantity of medicine required in cases of disease to effect a cure as still an open one. Cures were obtained with crude drugs sometimes as well as by attenuated doses; the result was uncertainty as to exact quantity of medicine for a certain case, and the mantle of charity should be thrown around those who, earnestly seeking the right path, differed in arriving at the right result. The relief of suffering humanity was the broad platform to stand on. Unity among the members of the profession would best aid the efforts to consolidate the system, and frequent meeting together in local and State Societies, would do much toward resisting the attacks of the enemies of the Homœopathic school. Dr. Lungren concluded with a hearty endorsement of the action of the Legislature of Michigan, in adding two chairs of Homæopathy to the medical department of the University.

At the conclusion of the President's address, the Society proceeded to the election of officers for the ensuing year, with the following result:

President-Dr. J. D. Buck, of Cincinnati.

First Vice President-Dr. J. H. Coulter, of Columbus.

Second Vice President-Dr. G. J. Jones, of Grafton.

Secretary-Dr. H. H. Baxter, of Cleveland.

Treasurer-Dr. J. C. Sanders, of Cleveland.

Board of Censors—Dr. W. F. Schatz, of Columbus; Dr. J. R. Flowers, of Columbus; Dr. C. H. Von Tagen, of Cleveland; Dr. H. Ring, of Urbana; Dr. Lewis Barnes, of Delaware.

Each of the various bureaus were requested to select some topic for discussion at the next meeting, and notify members at an early day.

Dr. Sanders, of Cleveland, read a paper on Obstetrics, which was referred for publication.

Springfield was the place selected for holding the next annual meeting, on the second Tuesday of May, 1874.

On motion of Dr. Beckwith, a vote of thanks was tendered to the physicians of Columbus for their generous and ample entertainment; to the papers for publication of reports, and to the city for the use of the Council Chamber.

On motion of Dr. Schatz, a vote of thanks was tendered to the officers of the Society, and thereafter the Society adjourned.

COUNTY SOCIETIES.

The Semi-annual Meeting of the Homoopathic Medical Society, of Medina and Lorain Counties, was held in Rawsonville, June 12th, 1873. Meeting called to order, and the President being absent, Dr. C. F. Cushing, of Elyria, was elected President pro tem.

Dr. G. J. Jones made a verbal report of the transactions of the State Medical Society at its last meeting in Columbus.

Dr. Arndt presented a written report on Scarlatina, its symptoms and treatment in certain cases. An animated discussion ensued. Dr. Cushing argued that the disease could be carried from the sick-room in the clothing of the physician, or visitors, and thereby communicated to others at a distance. Most members present thought that it could not be so communicated. Dr. Jones thought that many cases of Scarlatina of late, were complicated with cerebro-spinal-meningitis, and was concurred in by most members present. Dr. Arndt thought apis mel., aconite, bell. were the most successful remedies in her practice in Scarlatina. Dr. Jones, kali. bi. chrom., bell., aconite, bry.

Drs. Chase, Haywood, and Cushing, were appointed a committee to draft resolutions on the death of our late Dr. S. G. Wilmot.

Adjourned for dinner.

Meeting called to order at 1 30 o'clock P. M., Dr. Cushing in the chair.

The committee appointed on resolutions reported the following: WHEREAS, since our last meeting, we are called upon to record

the death of our esteemed brother, Dr. S. G. Wilmot, therefore, Resolved, that we feel bound to testify, that by his quiet and

affable demeanor, his skill, faithfulness, untiring industry, and thorough qualifications as a physician, he had endeared himself to a large circle of personal friends, and had secured the confidence of the community in which he lived.

Resolved, that by his death, the medical profession in this vicinity, has lost an able and eminent representative, the town a distinguished and upright citizen, and his family a genial and loved companion.

Dr. Peckham reported a case of Measles in his practice, with a distinct eruption in the palms of the hands, with echymosis of the balls of the thumbs; reported also the following case: Miss J. H., age 35, nervo-bilious temperament; complexion dark; hair and eyes black; stature small; had neuralgia for two years of face, head, and bowels principally, other parts affected more or less, pain sharp and shooting, comes on suddenly; bowels loose; at

times diarrhœa; had dysentery one year ago, which continued for two or three months: gave bell on the nux of alternately, every four hours during the day; at the expiration of five days no improvement. Believing that bell was the remedy, with or without the nux, I gave bell on one dose, with injunctions not to take anything else. No pain after first day, but a confused feeling in the head, which continued about one week; two months later no return of symptoms, patient well.

Dr. Jones presented a written report on the importance of anatomy to the medical student.

Dr. Cushing presented a report of a post mortem case; man past middle age; the lungs increased to one and a half times their natural size[?] hepatized, deposits of miliary tubercles, and the bronchioles enlarged to double their natural size, and filled with a hard gritty substance, supposed to be stone; the man had worked in a stone quarry some eighteen years previous to his death, and had to discontinue work in the quarry on account of his health; question—was it stone consumption?

G. F. PECKHAM, Secretary.

Phskekrics.

POSITION IN LABOR.

The following, is an extract from a paper read before the Iowa State Medical Society in May last, by J. W. Smith, of Charles City, Iowa. It contains some valuable suggestions, and will well pay perusal.

Text-books and obstetric teachings—at least all within my acquaint: nce—have little that is satisfactory and definite upon the subjec'. Such fact proves (1) that position is considered of minor in portance, or else (2) it is not well understood. This state of things is unfavorable to obstetric science, unsatisfactory to the young practitioner, and most unfortunate to the suffering woman.

Cannot the accoucher be furnished with unfailing directions.

in each particular case, as to the position that will cause the labor to be the safest, easiest, and quickest possible? I believe that not only possible, but within the easy comprehension of every physician of ordinary capacity, and who carefully studies the subject.

Doubtless many cases do equally well when the position is decided wholly by accidental circumstances. Among the things that are important at the beginning of every labor may be men tioned the proper evacuation of the bowels—a free enema of tepid water, or of salt or soap in water, being advantageous in the majority of cases. The bladder should be frequently evacuated, the clothing loose, and the under-garments so arranged as not to require changing after delivery; the feet kept warm, the head cool, the room quiet and well ventilated. A bed—not of feathers—or a broad lounge should be in readiness.

During the early stage of labor no restriction of movement should be attempted; but moderate exercise, especially walking, should be encouraged, and insisted upon in some cases, until it

becomes painful or uncomfortable.

An early examination is to be recommended. When the os is so high as to be reached with difficulty, it is not possible, in all cases, to decide as to the precise presentation, and, of course, not as to the best future position; but as the case progresses, and usually long before the rupture of the membrane, it is easy to decide as to the proper position. A patient's choice is often wrong, hence the need of deciding for her.

The philosophy of position is based upon gravity and muscular action, including contraction and relaxation. The key-note, or axiom, so to speak, of correct position, is the fact that the fundus of the gravid uterus, in its normal state, is movable to a certain extent in nearly all cases when not obstructed. The field for the application of this principle is almost unlimited, and will vary to some extent in every individual case.

HOW TO DETERMINE THE PROPER POSITION.

The directions how to decide as to the proper position had better be explicit; and to save time and space we will avoid all technicalities and proceed at once to explain how it is possible to decide upon the position in which the parturient powers will most quickly, easily, and safely overcome the natural resistance. External abdominal examination often aids in diagnosis, and should not be omitted in doubtful cases, but is not usually as reliable as that per vaginam.

Suppose that we cannot tell the exact presentation, or that we can, and in either case that the presenting part is found to impinge or press most strongly upon or towards the *left* side of the

pelvis, and even while the os does point, so to speak, to the right side of the median line of the pelvis. These two things occurring together may be said to be contradictory, and they do appear so at first observation—that is, the os inclining to the right, and the bulk of the fœtus to the left side of the pelvis. To decide accurately, before or after the full dilation of the uterus, a gentle upward pressure of the fœtus by the finger, between pains, will often be necessary. The finger can then be passed from side to side, and thus determine which side of the pelvis is most filled or pressed upon by the presenting part. If, as supposed, the presenting portion presses most directly upon, or to the left side of the pelvis, and, as stated, independently of the position of the os, that side—upon the left—is the position in which it will uniformly be found in practice best to place the patient; if to the right, the position should be upon that side. This is very easy to remember.

When placed upon the side, as indicated, it will often make all difference how the woman is placed—at least during a portion of the time-occasional changes of position being admissable, and sometimes necessary in the earlier stages to prevent too great fatigue or disgust with any one position. The woman's head should be low, the fundus moving more freely by gravity when it is so; the knees flexed; the feet supported, if preferred; and the arm that is under side placed either wholly back of the body, or, which is often easier, the elbow sharply flexed, and only the hand allowed to rest in front of the chest. She will then be partly upon her face, as in the position for using Sim's speculum, and cannot easily turn upon her back, as otherwise she would be likely to do, and thus defeat the full advantage of position. The knees in the latter stages of labor, had better be supported by an assistant, or by a pillow or quilt firmly rolled together and placed between them.

In many cases of tedious labor, after the *proper* position is assumed, such position and a single pain or two, if strong, will often bring the fœtus into the proper axis of the pelvis, and thus rapidly complete the labor. When the effect is not so rapid, and some other position is preferred, it can be assumed without detriment, after the cause of delay has been overcome.

ABDOMINAL SUPPORT.

In case of obliquity, pendulous abdomen, uterine inertia, etc., a wide bandage or support is often a great help, and sometimes necessary, in addition to the best position. It can be readily extemporized, and while it may not be as convenient as some specially designed, with me it has answered admirably. It should be about two yards in length, from twelve to eighteen inches

wide, and made of strong material. Two towels can be sewed together, or a sheet torn lengthwise and doubled once in the same direction.

HOW TO USE IT.

In lateral obliquity it is always best, and sometimes in other cases, to place the woman upon her side, as already described, with the center of the bandage passed evenly across the abdominal prominence, with one end carried under and the other over, and both behind the patient, so that the two ends can be firmly grasped together by one or both hands, usually best by the physician, and steady pressure can then be made across and around the abdomen during each pain. To make such pressure reliable, will require the counter support of the back at the same time, and this can often be made the most certainly and easily by the foot or knee of the person holding the bandage, a pillow or other soft support being first placed against the back, and, if room, the person sitting upon or standing at the side of the bed, while the abdominal pressure is applied by the bandage. The two forces can thus be made to act together and keep the woman in the desired position, while varying the amount and direction of the support, as is indicated. The bandage should be seized near the ends, to prevent too great compression of the sides of the woman. To aid sufficiently in some cases, may require the application of the bandage continuously for a length of time, or only occasionally and during a few pains. Posterior obliquity, as in pendulous abdomen, can sometimes be corrected by dorsal position, elevation of the hips, and external pressure by the hands; but experience teaches that the side position and bandage is often most effectual in those cases. Uterine inertia can sometimes be overcome by elevating the shoulders and pressure with the hands, but the kneeling or standing posture alone is sometimes sufficient and even preserable, the patient to be supported under the arms by two assistants during each pain.

SUMMARY OF DIRECTIONS.

To epitomize or briefly recapitulate the foregoing directions: Most cases have a lateral obliquity or pressure, so to speak, and if the presenting part crowds upon, or most nearly fills one side of the pelvis, then upon that side is the proper position. If towards the hollow of the sacrum, place the woman upon her back, elevate the hips, and, if necessary, use external pressure. If towards the sacrum, and one side, better place her upon that side, observing the arm is in position; and, if necessary, apply the bandage and support the back. If upon or towards the symphysis pubis, place her in a kneeling and almost horizontal posture, and, if necessary, upon the knees and face for a short time.

Formerly I was partial to the position upon the back, as I

thought it easy and convenient, but observation convinced me that the large majority of cases do the best upon one side or the other. It seems to most readily correct and overcome the slight obliquity which often prevents or delays the fætus from freely entering the pelvis, and sometimes retards or "locks" it in its passage through it. I think the perinæum is safer when upon the side, even if the labor is quicker, as the strong, voluntary pains, when upon the back, are most likely to cause rupture.

While the subject of position is important in nearly every case, its most evident triumphs are witnessed in some protracted and tedious cases. Did time and space permit, I could give a large number of cases in proof of what has been, and can be done by position. A few illustrative ones are given, but as before observed, the application of the principle is very extensive, and must vary

with every case.

We would heartily concur in the Doctor's suggestions, as to the more thorough and complete instructions in our text books and teaching, on the subject of obstetrics, and the parturient woman; and would thank him for calling attention to a subject which has been too much neglected. But would suggest that many ladies, and practitioners will seriously object to his "abdominal support," and his manner of using it; too much unnecessary handling and familiarity with the parturient woman, should be carefully avoided; as it is indelicate, and sometimes very offensive, we should be sure that the necessity exists, and then not hesitate to do anything that may be required. But always remember that "a meddlesome midwifery is a bad one," a saying as true as it is old, though we hope it will not apply to the methods suggested in the above extract.

A pillow folded or rolled, and tied with a string, placed under the pendulous abdomen will usually meet all of the requirements, and is much more convenient, and agreeable; or cause the body to change position from side to side, or to her back. This course has been entirely successful in a practice of twenty-five years, in which, seven hundred and twenty-five obstetrical cases have been attended, and in no case have forceps been used.

We would agree with the Doctor that in a large number of cases, change of position of the patient alone, will tend to a speedy termination of the labor, and join him in urging the necessity for an early examination, to ascertain position, and bearing of the

uterus, and presenting part of fœtus, and the question as to any particular position on the side, back, knees, or any other, must be determined by the indications to be fulfilled. If the abdomen is not unusually pendulous, and if no obliquity or mal-position exists, the lady may be allowed to stand, walk, sit, kneel, or lie, as she pleases, or is most comfortable, until labor is far advanced in the second stage, when the position on the back on a bed or a broad lounge, will usually be found to be most comfortable for the lady, and most convenient for the accoucheur. Some ladies object to that position, for reasons which are their own, but nevertheless are entitled to respect, unless it is found that this position interferes with a reasonably speedy and safe delivery, then such objections must give way to the necessities of the case. where the walls of the abdomen are flaccid or unusually pendulous. side positions are more liable to favor obliquities, and for that reason are objectionable. Where an obliquity exists, there is often great difficulty in inducing the presenting part of the fœtus to enter the superior strait; and for that reason the woman should remain on her feet, or be moving about, as long as possible. When the presenting part has become fully engaged in the superior strait. it matters but little so far as any tendency to obliquity is concerned, what position she takes on the bed.

Seven cases are reported, in which the Doctor's method was carried out—all terminated in a satisfactory manner.

O.

PUERPERAL PERITONITIS

Has been epidemic in Cincinnati and vicinity during the past four or five months, especially has this been the case in Covington and Newport, Kentucky. It has been my lot during this visitation, to attend in my immediate practice five cases of genuine "child bed fever." The usual symptoms were present, abdominal tenderness, tympanitis, pulse 120 to 140, cadaverous countenance, and all the usual concomitant symptoms.

Medical authors distinguish several varieties or forms of this disease, as, acute puerperal peritonitis, adynamic or malignant

puerperal fever, puerperal intestinal irritation, false peritonitis, etc. But they are all merely accidental modifications, or different degrees of severity of the same disease, which consists essentially in an inflammation of the peritoneal membrane, sometimes, however, complicated with inflammation of the bowels or uterus, and attended always with a violent but low prostrating fever of the typhoid type. Among the more prominent symptoms are. swelled, hard and painful abdomen and obstinately constipated bowels. The inflammation may or may not involve all the viscera of the abdomen. In three of the cases treated, the usual accessory symptoms of general fever were succeeded by a sense of heat and pain in the abdomen, at first usually confined to the hypogastric region, but gradually became diffused. There was inveterate constipation in these cases, suppression of the lochia, and more or less dysuria, often complete. Two of the cases presented from the beginning, low, adynamic conditions, sordes, and colliquative diarrhœa.

The disease was controlled by aconite, bryonia, colocynth, merc. cor., and bell.

Bryonia appears to be a sovereign remedy. It holds the same relation to inflammation of the peritoneum, that it does to inflammation of the pleura. The increased action of the heart, and great acceleration of the pulse, with the pungent heat of the skin are indications for its use, especially when we have a dusky hue of one or both cheeks, with a vibratory pulse. I depended mainly upon the effect of Bryonia for a resolution of the disease; it was prescribed in every case.

Aconite was used to control the heart's action, but always discontinued after the appearance of sweat.

Arnica and Pulsatilla were found suited to those cases assuming a rheumatic form. I have always reasoned that as these remedies are especially suited to rheumatic pleurisy, so are they indicated when the conditions obtain in the abdominal serous membrane.

When there was excessive tenderness of the abdomen and a tense state of the same, with considerable pain between umbilicus and pubis, colocynth answered the purpose.

I believe that belladonna and mercurius sol. or cor. may be

used as prophylactics during an epidemic of puerperal fever. For ten years past, I have been in the habit of giving my lying-in cases, immediately after confinement, belladonna and mercury in alternation, a dose every hour for 10 or 12 hours; and in quite an extended experience, I have seldom been called upon to treat the usual or possible complications of the puerperal state. During epidemic seasons the uterus should be forced to contract firmly after the expulsion of the placenta, thus preventing the accumulation of clots, and thereby guarding against the possible contingency of toxemia from decomposition. Chlor. potass., the salt dissolved in water, and given freely as a drink, was used as an antiseptic; no remedy will meet the indication so well as this: cleanliness and pleasant surroundings assist greatly in this fearful disease.

Whenever there was partial or complete suppression of the lochia, the hot compress was invariably used.

Belladonna always afforded relief to the abdominal pain when pressure relieved the same; great sensitiveness was relieved by colocynth. W. H. Hunt.

RESULTS OF EXTIRPATION OF THE OVARIES.

A writer in the Montpelier Medical sums up the observed results of ovarian extirpation.

He says that the genital organs remain excitable, the breasts are not atrophied, no tendency to excessive corpulence, no alteration in the growth of hair, no modifications of the voice, the character becomes gentle, and the menses never re-appear. If this is true it would say much in favor of the new American operation "Normal Ovariotomy," and indeed if the change of character is well marked, it may be a good method of "Taming the Shrew."

O.

If the human young has a single right which Providence authorizes it to assert, it is certainly the right to demand food and drink, and to do so when its own instincts direct.

Aug-4

Miscellaneous.

EXTRACT FROM PRESIDENT A. E. SMALL'S ADDRESS—AMERICAN INSTITUTE OF HOMŒOPATHY.

MEDICAL EDUCATION.

What has been accomplished during the last year in this respect. and what remains to be done? We are proud of the step taken by the American Institute at its session of 1870 in Chicago, in recommending our colleges to adopt the regulation of graded course of three years, for students, before passing them as candidates for the doctorate. This plan, to some extent, has been adopted and carried out successfully by several of our colleges, and yet to render the graded course still farther efficient in elevating the standard of medical education, we need something more than the junior. middle, and senior courses of six months each. What ought we to do about it? Is it not within the province of this body to recommend a uniform standard of preliminary attainments, preparatory to entering the junior course? Is it not the duty of our colleges to adopt this rule, to insist upon its observance, and to so announce it? It is also incumbent on us to recommend and urge upon students the necessity of attaining to a certain standard of preliminary education in order to be admitted on examination to the junior course of any of our legalized medical schools; and in fact to make it imperative on the part of the schools themselves, to insist upon the observance of this regulation, and let each provide a board of examiners before which all students shall pass, before entering the college courses. Should this proposition be universally favored, and uniformly adopted by our schools, our profession would cease to be disgraced by ignorant, illiterate, and uneducated adventurers, who always seek the easiest and shortest road to get a diploma.

OUR LITERATURE AND BOOKS.

In a country of so vast an extent as ours, the periodical literature keeps up a bond of union and interest between isolated districts. The progress made in this department accords well with the times. Two quarterly and several monthly journals are constantly gathering up the fruits of observation and research, while others advocating private interests circulate a knowledge of homœopathy and items of intelligence from shore to shore.

The power of the press is everywhere revealed, and in the service of truth it builds up human interests. It should never be the willing generator of puerile strife, but the propagator of noble principles. In medicine it should be the channel of truth, new discovery, and practical observations. A medical journal is out of its legitimate sphere when it becomes the propagator of doctors' quarrels, throwing broadcast personal invectives, dogmatic implications, and insinuations of a personal nature. The press, when controlled by men of doubtful integrity, often proves a source of corruption, but when governed by good and true principles, it exerts a wholesome influence. When engaged in the cause of medicine, or in behalf of human health, its standpoint should be sufficiently elevated and pure to send forth as from a fountain, retreshing streams to invigorate the careworn faculties of those engaged in professional life.

It is the duty of an editor, while in the advocacy of any cause, to cherish liberal sentiments, and not be invidious or dogmatic in criticisms, while it is his privilege to indulge in wholesome review, to point out errors, and hold them up in the light of truth. It is not for him to mar the work by going off in side issues, a few malicious flings, a needless exaggeration and perversion; for it betokens a littleness of soul and a want of manly honor, which, to say the least, is sometimes humiliating in our medical journals. What then should be expected of our periodical literature? It will not be extravagant or exacting to expect that it will be the medium of conveying periodically to its patrons, the latest achievements of science and art in medicine and surgery—the latest record of scientific discovery, of material, medical, and clinical experience. It should be the repository of reliable intelligence concerning climates, watering places, and retreats for invalids suffering in body

or mind. It should contain well written and exhaustive essays on the treatment of specific diseases, epidemics and endemics, and the best means of guarding against them. It should discuss the sources of malaria as well as the lethal intrusions upon the wings of the wind. It should interest itself in general sanitary measures, scan the sewerage and drainage of cities, point out what is defective, and how to remedy it, give explicit directions concerning the effects of pure water and other elements of hygiene in promoting the longevity of the human race; and while our periodical literature occupies this field,

OUR GENERAL LITERATURE AND BOOKS merit a passing notice. Every physician requires a library, to be increased as his interest ripens in professional knowledge. Already something creditable has been accomplished in the way of books; but more is needed. Exhaustive treatises upon one or more branches have been published: other works are needed to show the application of homeopathy to surgery; to diseases of the eye and ear; diseases of the lungs, heart, and chest, alimentary and glandular systems, and the tegumentary tissues, nerves, nerve-centres, &c. We want at least a hundred volumes, of full library size, which shall be exhaustive treatises upon as many different subjects, demonstrating the all-important fact, that homeopathy is universally applicable to all states and conditions of disease incident to the great variety and almost infinite number of tissues in the human organism. It is for this Institute to lend a helping hand to all enterprises looking to the ultimate object for which it was formed.

DO ANIMALS HAVE SOULS?

A more difficult query than this could not easily be propounded to one who is at all conversant with modern investigation and thought on the subject. It is easy to start with arbitrary definitions of mind, soul, spirit, and so forth, and then proceed to explain facts in accordance with a theory. It is not so easy to start with mind as it manifests itself to observation and conscious-

ness, and then proceed to a satisfactory definition. Mental phe nomena are so complicated and obscure, and obey laws so little 'understood, that those are the most reticent on the subject who have studied it most faithfully. I have long been inclined to admit the essential identity of all mental action, and to see in animals the cruder and ruder manifestations of the same wonderful faculties which constitute the glory of man. If the evolution-philosophy is true (and I do not see how to escape it), the human mind, whatever in its essence it may be, is a fine development of faculties which exist in germ in lower forms of life.

Animals exhibit will-power; if will-power is the proof of mind, it is difficult to deny that they have minds. From this admission some infer that, if men are immortal, animals must be. While I have no objection whatever to hoping immortality for animals as much as for men, I think the logic of this inference somewhat lame. Out of fifty seeds, perhaps only one develops; and it is conceivable that the seeds of mind have no permanence,—fail to develop into enduring individualities,—unless they are endowed with such original vitality as is possible only in beings as highly organized as men. But it would in this case be difficult to draw such a line as to class all men as immortal, and all animals as mortal; for some animals actually appear more intellectual than some men. The worst brutes are two-legged brutes,

Whether all life, as such, is indestructible,—whether every seed of mind, as I have expressed it, is destined to grow, increase, and develop, ultimately into something powerful and valuable enough to achieve a permanent being,—is a question that must suggest itself to everybody, who does not dogmatically deny the possibility of a higher evolution than is visible to the eye. The universe is very large. It may be lawful to consider it as deep as it is extended; that is, to take for granted that our five senses do not let us into the whole secret of even that with which they deal most intimately. A sixth sense would revolutionize all our science, and even our commonest conceptions of things. What reason have we to suppose that all existence is such as to come under the cognizance of human eyes, ears, and noses? We touch reality only at a few points, and those only on the surface. No one could have a profounder conviction than I, that there is only one method

of studying it, and that the strictest scientific method. But also no one could have a profounder conviction than I, that science is a baby yet; that its career is only just beginning; that it little comprehends the magnificence of its own future; that problems which it now scouts as ridiculous it may yet, when wiser, bend its every energy to solve; that, even at its grandest height, it will find infinities still unexplored; that, the wiser it grows, the surer it will be that it cannot with only five senses bring all Nature under examination; that the expansion of its horizon and the extension of its visual power will be accompanied with increasing modesty, and a self-knowledge that will dispel some of the sophomoric conceit that now proves its immaturity; and, in short, that it will find the regions of its own higher investigations stretching away so far beyond its ken that it will less and less deal in confident negations respecting the unknown.

Perhaps I may seem to have strayed hopelessly from the subject I began with. The truth is, it reminds me of the road Mr. Emerson once mentioned as tapering off into a cow-path that terminated in a squirrel-track and ran up a tree. The farther I travel it, the less do I seem to arrive. Beasts may have souls; I hope they have with all my heart, if they can ever come to know what to do with them. Some of their supposed superiors have not learned that lesson yet, and find no use for their souls but to crowd them out of sight as fast as possible. Better have no souls at all than to despise its guiding voice. While so many of my fellows evince no vitality that is not wholly explicable as mere reflex-action. I feel more interested in discovering whether all men have souls, than in discovering whether beasts have them. But I am disposed to take a cheerful view of both cases, and look forward hopefully to the day when the word "soullessness" shall drop out of the dictionaries.—[F. E. Abbott.]

AVERAGE LONGEVITY OF PHYSICIANS.

Medicine in some particulars is the most inconsistent and unequal of the professions. In one aspect it is peculiarly conducive to health, in another it is theoretically most hazardous.

It calls into action the best faculties of both mind and heart its study embraces in its totality the whole range of human thought and feeling.

Moreover, the physician is not alone an operator in bodily injuries and a prescriber for merely physical diseases, it is his solemn privilege to

"Minister to a mind diseased.

Pluck out from the mind a rooted sorrow,
Raze out the written sorrow of the brain."

—a task that demands his own moral as well as intellectual sympathy and inspiration.

In so far, then, as medicine gives scope for the exertion of man's best faculties of mind, in so far as it quickens and intensifies the moral nature, in just so far does it approximate to the ideal type of the profession.

But there is another side to the picture. The physician, especially the country practitioner, cannot adjust his hours according to hygienic principles. The life of a successful practitioner must then be one of exposure, anxiety and irregular toil.

The city physician is often able to combine in a most happy manner the physical exercise of daily practice with various study and acquisition, thus marrying, as it were, bodily exercise with a purpose to a calm pursuit of science,—a most fortunate union that cannot fail to be conducive to vigorous health and length of years.

Of 490 physicians of Massachusetts who died before 1840, the average age was 57, and 35 in each 100 attained to 70 years.*

In Thatcher's Medical Biography 145 physicians are mentioned whose average is 62.8, of these

"

30

3 died between 90 and 100 years. " " " 80 25 90 80 70 37 30 60 70 60 2 I 50 τ8 40 50 " 15 30 40

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12

^{*} Report of Sanitary Commission of Massachusetts, 1850.



It thus appears that 59 of these lived to be over 70, and 100 or more than two-thirds, over fifty.

Of thirty-two physicians and surgeons whose lives are sketched in Gross's Medical Biography (including several who died before their prime) the average was 59 years.

It is stated on good authority that physicians are more than ordinarily subject to cardiac disease, owing to the fact that they are so continually obliged to disguise their thoughts and feelings while in the presence of patients.

Whatever of truth there may or may not be in the statement it does not prevent their attaining a high average longevity.

G. C. J.

PERSONALS.

Wm. Murdock, M. D., located in Garrettsville, Ohio.

Dr. R. B. House, has removed to Tecumseh, Michigan.

Dr. H. L. Ambler, and Prof. N. Schneider, of Cleveland, have gone to Europe, to spend the coming year.

Dr. Geo. A. Slack, of Monroeville, O. shouts "Eureka," over his first bov.

Dr. S. J. Hill and wife, of Franklin, Pa., are rejoicing over their first born, a daughter.

Dr. D. H. Beckwith arrived home from Europe Aug. 3d, and may be addressed at Cleveland.

DIED—Myra W., wife of Dr. W. C. Dake, of Nashville, June 13th, 1873.

Dr. J. R. Flowers, of Columbus, writes of the loss of his little daughter May, who died suddenly, June 17th.

It is now some months since the death of Prof. Jacob Beak-Ley, of New York. We have delayed to notice the fact, because we were promised an obituary, from the pen of one of his intimate friends. In the absence of this, we make this brief mention, and confess our inability to do justice to his memory.

N. Y. STATE HOMŒOPATHIC INSANE ASYLUM.

We are indebted to Dr. H. M. Paine, for a brief report of the meeting of the Board of Trustees.

Dr. Henry R. Stiles, secretary of the bureau of sanitary inspection, of the city of New York, was appointed medical superintendent in place of Dr. Henry D. Paine, resigned.

The members of the board inspected the central or executive building, as it is designated, now nearly completed, and expressed themselves greatly pleased with the plan of the the building, and its beautiful external appearance. This structure is expected to be completed, ready for the reception of patients, in September or October.

The building committee were instructed to commence at once the excavation for the basement story, and to procure plans for an additional building of substantially the same size as the present one, three stories high, and costing about \$75,000.

As soon as the plans are obtained, the contract for the new building will be let at once, and it is expected that the building will be inclosed before the setting in of cold weather.

SAYS THE N. E. Medical Gazette, of the Boston University School of Medicine—an institution just born, and Homœopathic—"The school is not a month old, and yet, of an unusually full staff of professors and lecturers, there remain but two chairs, of which it would be premature to announce the intended incumbents."

It struck us the same way when looking at the formidable list of the faculty, that it was "unusually full". Our first exclamation was, "What a long tail our cat has got!" For an infant "not a month old" it seems to be as well provided for, as a young man out west who was christened on his eighth day, with, Julius Casar, Christopher Columbus, Richard III, Napoleon Bonaparte, Phil. Sheridan, only this and nothing more. But the simplicity of the idea charms us, that much is accomplished by getting the chairs all comfortably filled. Why bless you Brother Talbot, there are in the United States to-day two professors (in

esse), to every single student in (in posse). There is no end to the men who want to be professors. But when you get those other chairs filled with students, count yourselves happy, and let us congratulate you on having accomplished something worth boasting about.

DR. JOHN C. PETERS, a notorious medical pervert, came to Cincinnati to investigate the Cholera question a few days ago. His mission was a self-appointed one, and his object was to gain notoriety. He has hit upon a fine expedient to secure the latter. His statements regarding Cincinnati, are wholly repudiated by our Health Officer, Dr. Quinn. But if he has drawn upon his imagination to the same extent, in the rest of his report, and in regard to other places, he will be immortalized as the prince of medical Munchausens.

OUR READERS will notice that "Proceedings of Societies," crowds out the Departments and Miscellany this month. The proceedings are too valuable to be lost.

BOOK NOTICES.

The Homeopathic Family Guide for the use of Twenty-Eight Principal Remedies, by Geo. E. Shipman, M. D. Western News Co., Chicago.

This is the eighth edition and much enlarged from the first. The work was wholly destroyed by the great fire. It has since been carefully revised and corrected, and Mr. Halsey has generously donated the copy right to the Chicago Foundlings Home. We need only say that as a domestic work it is not to our knowledge excelled. Its simplicity and plainness will make it a favorite among the laity.

For Sale by Geo. E. Stevens & Co.

Ophidians. This remarkable little work greets us from the press of Bæricke & Tafel.

The author Dr. S. B. Wiggins, had ample opportunity while residing in South America, and afterwards in the British Museum Library, for studying the zoological arrangements, "pathological, toxicological, and microscopical facts" connected with this numerous and interesting class of reptiles. As a zoological contribution the work possesses much permanent value. Not less than six hundred varieties of serpents are carefully classified, and their characteristics, various localities, and the nature of their poisons, clearly explained. The crotalidæ, to which belongs our well known rattlesnake (crotalus horridus) and the viperidæ, to which belongs the lachesis (l. trigonocephalus) are well described.

The chief object of the work is to show the value of treating snake poisons, by the use of the gall of the snake. The successful use of this substance unmixed, is a discovery that reflects great honor upon the writer of this book. The closing part, devoted to the pathogenesis of these animal poisons, deserves careful study.

A Medical Hand-Book for Mothers. By Alfred C. Pope, M. D. Henry Turner & Co., London.

"This book is designed to assist the young wife and mother, in the management of her health, and in providing for the wants of her infant." Upon a careful perusal of the work, we think the design is worthily fulfilled. If our professional readers would place a copy of the book in the hands of their patients, who are in expectation, or in fact mothers, and have the care of children, they would confer a priceless favor. Ante-natal influences and duties, and responsibilities of rearing children, together with their management and treatment during sickness are all made plain and comprehensible. The size of the book is not such that its bulk will make it repulsive. The subjects are treated briefly and

r y, and will be understood by any ordinary reader.

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DRUGS vs DRUGS.

The allopathic fraternity are continually distressed about people who consume so much patent medicine. Now they fire off a whole broadside of resolutions; now they seek for legislative protection,—protection for the people of course, who are being poisoned by the wholesale; it doesn't hurt the doctors at all, nor diminish their incomes—and now they present frightful statistics about this drug-eating mania.

Well, this is a serious question no doubt; but who is responsible? Let us see. The allopathic doctors and the patent medicine men, are in the same calling. The latter to be sure do not put on so many airs, do not assume so many personal virtues—whatever they may claim for their goods—are not so clannish and Sept-1

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bigoted, but like the doctors aforesaid, they treat diseases by name and by recipes. Both classes of gentlemen use compound preparations, which, according to their natures are variously named, and upon the same classification viz: cathartics, anodynes, alteratives, expectorants, deobstruents, etc., etc.

The patent medicine men have no diplomas, except such as they get from the general government, though these are in effect the same as the doctors have from obscure corporations, to wit: a permit to kill or cure as the case may be. But they are commercial men, and not professional, though it is well known they have much the larger patronage.

The patent medicine men put up their goods in attractive style, and keep them at all the drug stores, where they may be easily obtained. In a multitude of instances both parties use the same recipe, and for the same purpose.

But note the difference it makes to the patient which party he patronizes. If he employs the doctor, he pays perhaps two dollars for the recipe, then he goes to the drug store and gives it to a clerk half-awake at night, or distractedly busy during the day, and who may, or may not, be careless in the way he compounds his drugs, and then the patient pays an additional half-dollar and runs the chances of being killed rather than relieved.

While he waits to get his medicines compounded, he sees in the gilded case, the same preparation put up in much more attractive style, and costing perhaps twenty-five cents. This medicine he knows was compounded in a labratory by skillful workmen, whose attention is wholly given to their work, and not divided by a large number of prescriptions to be successively and simultaneously prepared. If, therefore, the patient concludes to take the patent preparation, he is warranted in doing so by every consideration of economy and safety, to say nothing of valuable time he will save by getting that which is ready prepared. The fight therefore which the allopathic doctors are making against the use of patent medicine, is merely a fight for bread and butter. The idea that the dear public is any safer in their hands, is simply absurd. If we had any interest in their success, we might suggest two things as likely to help them out of their troubles, and to restore to them the confidence and patronage of the public. First, don't send your patients to the drug store where they are so easily tempted to touch the unhallowed thing.

Secondly, don't use the same prescriptions that the patent medicine men do.

It would of course, be useless to suggest that they might have their dangerous recipes more carefully prepared and that they might furnish them at a competing price, or have them put up in more attractive forms.

The interest of the public would be best subserved by patronizing neither party. There is in reality no difference between them. The efforts of the allopathic doctors to decry their competitors, is no more than the kettle calling the pot black, and we have no interest in the controversy, unless it serves to open peoples eyes to the folly and danger of using poisonous drugs, in the vain hope of finding health.

ECLECTICISM, MERCURY, ANTIMONY AND ARSENIC.

The very thing that most betrays the weakness of Eclecticism and shows its lack of knowledge, is just that about which its practitioners make the loudest boast. So far as it has made successful warfare against the old-tashioned style of bleeding patients in order to cure them, it has done a good thing. Thirty or forty years ago, this custom was in vogue. But it has been generally discarded for nearly a quarter of a century. One would suppose that by this time it had become a dead issue. But our Eclectic friends think differently. They remind us of the old story of the dog, which, when a pup, drove a squirrel into a hole; and years after, when old and gray, would, upon the least excitement, rush for the same hole and bark with all the intensity of youthful days. If Eclecticism be the school of progress it professes to be, why does it never get past this one point? Is it so short of working capital, that it cannot afford to fund this and use the interest only?

But Eclecticism does profess other principles than this. It openly discards Mercury, Antimony, and Arsenic. And on this issue, it goes before the world with a sound of brazen trumpets. It was comparatively an easy matter, twenty-five or thirty years ago, to make some people believe that these agents were never curative, and only hurtful, when taken into the system. It was easy to find converts to the theory that mercury, especially, was the parent of half the chronic diseases that afflicted mankind.

But we have now extended and carefully prepared pathogeneses of these drugs, and can recognize better than could our fathers, the symptoms they produce. And we have a better pathology also, and are not so blinded and confused about factitious, idiopathic, and hereditary diseases. A candid and sober judgment does not allow us to heap all possible evils upon Mercury. We know its misuse has been followed by disastrous effects, and this is true of every other drug in the Materia Medica. Antimony and Arsenic are in the same category. In early times, when poorly understood, and used by ignorant physicians, they worked great harm.

The Eclectics saw this, and they did well in arousing the profession to a work of reform. But when at this late day, they raise the old hue and cry, they are simply barking at the old hole through force of habit. Without stopping to investigate the uses of these drugs, they have allowed their judgments to be overthrown by the abuses they have discovered in the practices of the old school, and so deprived themselves of agents, whose power for good is in exact ratio with their power for evil.

The fact is, the fault is not in the drugs but in the Eclectics. And until they change their ideas of therapeutics, it is well that they leave these edged tools alone. One would think a powerful drug, hurtful in a large dose, might be reduced in quantity until it ceased to be hurtful and then given with safety. But our Eclectic brethren never do things by halves. As a rule, they give twice the amount of medicine given by the old school, and there is little hope that they will soon be brought to see that, in small doses even, Mercury, Antimony and Arsenic may be given with impunity, and, what is more, with the best of results.

A QUESTION ON FEVERS.—Has the body thermometer become a discarded instrument? Is it true that it is no longer a diagnosticating agent in the study of typhoid fever? One would think so in looking over our homœopathic journals. Lately we have seen a number of cases variously reported as typhus and typhoid miraculously aborted by certain remedies. Sometimes it is a high attenuation of Rhus tox.; more frequently it is Baptisia. The alleged attack comes on suddenly, the pulse is rapid, intellection impaired, tongue dry, bone pains severs, etc. etc. The doctor is called, makes a prescription, and the next day the patient is well, or at most sick only 24 or 48 hours. Then the claim is set up of an aborted case of fever. This looks very absurd to every one versed in the pathology of the disease. No mention is made in any of these cases of the temperature. The doctor seems in blissful ignorance of what the thermometer might do in determining the nature of the disease. The need of an extended observation of the varying increase and decrease of the temperature does not enter his mind. He dashes headlong at a conclusion pretty much as a pseudo-astronomer might in calculating a parallax from once looking through a telescope and guessing at the rest.

We give notice now, and here, that we take no stock in such wonderful cures. We do not doubt the occurrences as related, but the conclusions are hasty, foolish, and hurtful. They react upon us injuriously, and bring our school into disrepute. The love of the marvelous need have no place in matters that pretend to be scientific. Shall we have an end of such an objectionable display of ignorance?

THE OHIO MEDICAL AND SURGICAL REPORTER felicitates itself upon the statement of one of its readers, to-wit: "You edit a medical journal, not an original one, nor a semi-scientific one, nor a high-dilution one, nor anything else but medical and homosopathic therapeutics."

Curious to see if the facts warranted the conclusion, we have examined the number containing this puff. The first article is on surgical pathology, with no reference to "medical" or other therapeutics. The second article is on "Science and Religion," an able

exposition of orthodox views of modern science. It may be "semi-scientific," it clearly is not characterized by any thing "medical and homeopathic." The third article is a philosophical disquisition on the "Atomic Theory Applied to Life," the fourth is on "Prolapsus Uteri" treated by electricity. The fifth on "Small Pox and its Prophylaxis." The sixth on "The Starch Bandage." The seventh on "Prediction of Sex in Utero by Auscultation." In all these, two homœopathic remedies are referred to. Altogether there are twenty-eight articles, of which only five refer to "medical and homoeopathic therapeutics." The Reporter is not "original" yet this number has only one of its regular articles selected. It is not "semi-scientific," yet it has two articles on scientific topics. In short if its mission be "medical and homeopathic therapeutics" it seems just now to have missed its calling. But to our thinking the judgment of "one of the ablest journalists"—the author of this flattering note,—is as much at fault as is his grammar. The Reporter is good enough, but it is not what its editor or that "ablest journalist" thinks it.

O! wad some power the giftie gie'm,
To see themselves as ithers see'm.
(vide Burns with variations.)

George Eliot says: "But let the wise be warned against too great readiness at explanation; it multiplies the sources of mistake, lengthening the sum for reckoners sure to go wrong." It were well if doctors, and especially young doctors, would bear this in mind, and keep their mouths more closely shut. A man can err by excessive reticence, but he is far more likely to err by too much talking. A show of wisdom by many words is pretty sure to lead one into difficulties. Those who cannot understand and those who do not wish to understand, make together a large majority to whom it is unsafe to offer wordy explanations.

INFANT FEEDING and its relations to Infant Mortality, is the title of a most excellent monograph by Dr. E. S. McClellan, editor of the *New York Med. Review*. It is a scathing review of the views that have been put forth upon this subject by various par-

ties, and it presents an interesting discussion of several much mooted questions concerning the feeding of babies. We have marked and shall present several valuable extracts from the article.

SCIENTIFIC HOMŒOPATHY.

Under this heading the *Druggists' Circular and Chemical Gazette*, presents a very readable article. The discussion is couched in unexceptional language, and the seeming candor of the writer is quite as likely to win the reader, as his pretended arguments against the system he attempts to overthrow. We propose to follow the writer, and examine the nature of the statements he puts forth.

To begin with, he frankly confesses what most of his confreres are loud to deny. They say that Homœopathy never had prestige in the country where it originated, nor in any other part of Europe, and what it has of prestige in this country, it is fast losing. The writer says:

"One of the most remarkable facts connected with a philosophical exposition of the principles of the treatment of diseases and the action of medicines, is to be found in the success with which the homœopathic system has been maintained in the presence of prejudices and the *a priori* reasoning, of the thinking, inquiring classes, who want to understand the why and wherefore before they are willing to believe."

Lest this very handsome and well-deserved tribute, should go for more than it is worth, and spoil, by its impression, the after attempts of the writer, he hastens to add:

"Homeopathy has grown to very respectable proportions and position, albeit, having apparently, nothing in the whole realm of natural sciences to afford it even feeble countenance or support." But as this statement thus broadly made, carries with it liability of meeting a prompt denial, and the demand for proof or retraction, the writer immediately hedges under the following:

"We have no intention to discuss the reason for the existence of a phenomenon so singular."

If he could only prove the utterly unscientific character of the homœopathic system, he would have unmistakably an interesting subject of inquiry on hand, if he sought out the cause of its popularity, which exists in spite of its defects. But, if perchance he should make the unsought for discovery that Homeopathy and modern science were joined hand in hand, his "phenomenon so singular", would need no solution. He might find this a more interesting question; not, why, with the changes that are going on in the various departments of science, we should have a system of medicine radically different from its predecessors coming into use, but, why, with all the changes that have occured in collateral subjects, anatomy, physiology, chemistry, pathology, &c., &c., we have such a system as Allopathy, still existing, with its fundamental principles essentially as they were a century or more ago? Which of these phenomena is the most singular, we leave the "inquiring classes" to judge.

The writer then proceeds to examine an article written in Paris, evidently by a veterinary surgeon, in which article, there is attempted to be set forth a statement of the leading principles of the Homocopathic school. They are not especially new to most of our readers, but we reproduce them.

- "1. Medical substances have the property of producing disease in healthy organisms, and they can prove curative only in proportion as their effects resemble the symptoms by which a given malady is made manifest.
- 2. All disease consists in a "dynamic aberration of our spiritual life," of an "immaterial change in our inner being," together with certain symptoms by which this "dynamic aberration" is made manifest.
- 3. Medical substances act upon the immaterial principles of diseases by a certain force, a dynamic principle, which they contain; and this force may be separated from the material part of the medicament, and rendered the more active in proportion to the amount of dilution, of succussion, and of trituration which it undergoes."

The writer in the *Druggists' Circular*, then comments upon these statements, premising that, "These are the principles as laid down by Hahnemann in the early part of this century, and they are those upon which the Homeopathy of to-day is founded."

How far this premise is true, we may be supposed to know quite as well as the writer, and we make bold to say regarding the first of the principles stated, it may be accepted as being maintained everywhere by homœopathists. The name of the school represents the fundamental fact that its practitioners believe in the law, similia similibus curantur. But the writer denies the truthfulness of the law, and in his effort to disprove it, shows a fearful confusion of ideas regarding the nature of disease, and ignorance of the practical application made of the law, by intelligent homeo pathists. He asks, "what is the morbid action of a mucilaginous , drink given to a horse with abdominal pains, caused by the dry and impacted state of the intestinal contents?" This does not touch the question at all. He might as well ask, "what is the morbid action of a man, seizing a drowning person by the hair of the head and pulling him out of water?" There is no morbid action in either case; both are purely mechanical. If the abdominal pains of the horse subside, and the man recovers of his drowning, after the causes are removed, it is because they spontaneously get well. No body claims that Homocopathy is applicable to mechanics.

But suppose the impacted feces had remained so long in the bowels, as to set up inflammation, which did not subside so soon as the contents of the bowels were removed, what would the *Druggist's Circular* man do then? The horse continuing to have pain, would he give him more mucilaginous drinks, or would he abandon mechanical procedure, and attempt medicinal treatment? Probably he would give the horse an anodyne, and so by the action of a poison, benumb the sensibilities of the sufferer. But that would leave the question of curing the disease wholly untouched. While the horse was narcotized, the *D. C.* writer would live in hopes that nature would bring about the work of cure. Failing in that, would he attempt to meet the inflammatory process directly and specifically, and by what medicinal agents? This brings us face to face with the only condition under which the homoeopathic

law is applicable. But this is the very point the D. C. man and men of his school fail to see; or they are too ungenerous to admit it, for it takes away the force of their arguments.

The writer's further talk about destroying parasites by chemical agents, or giving antidotes to arrest the action of poisons, or causing a feeble womb to contract by ergot, etc., etc., etc. are pointless, and wide of the mark. They may all be dismissed without answer. The more they are pressed into the discussion, the more they show the ignorance of the parties who make such use of them.

In order to investigate the scientific character of Homœopathy, the investigator must be able to distinguish between disease and its cause. This is a small thing to require of any body, but there are many men like this writer, who cannot do even that. But it is further an essential prerequisite for the investigator to have a clear conception of the nature of disease, and to know that it is, the disease and not its causes nor its results that come within the scope of the homœopathic law Any other issue forced into the discussion that might naturally arise, serves only to display blindness and weakness.

Now regarding the statement under consideration, the writer does not deny the first proposition that, "medical substances have the property of producing disease in healthy organisms." He admits it as true, of "nearly all substances." The second proposition that they "prove curative only in proportion as their effects resemble the symptoms by which a given malady is made manifest," he denies, but in the confusion of ideas he labors under, he brings forward illustrations that prove only his lack of a just conception of the question at issue.

Therefore, until he, or some one, does meet the question fairly, we shall be content to hold to the opinion that Hahnemann was right, and that his followers are not in error, when they believe that in daily practice they do prove, that medicines holding such a relation to disease, do cure. And we may add that all intelligent allopathics, and eclectics, are free to acknowledge that some medicines do act according to this law, and that some disease are best so treated. This concession being made, narrows the question down to the universality of the law, and this we need not discuss here.

T. P. W.

Theory and Brackice.

THE TWELVE FEVERS.

Let us proceed to examine these, one by one, according to our plan of noting and recording whatever belongs particularly to each, attempting also to point out some remedies which, according to our ideas of a sifted and purified materia medica, should be adapted to their mitigation or cure.

1.—IRRITATIVE OR SIMPLE INFLAMMATORY FEVERS. This division includes all idiopathic fevers which appear to rise from mere irritation, as from the presence of worms in the stomach or bowels, from surfeit, mental or physical weariness, and especially from cold. Fevers of this kind have been called by various names, in accordance with the organs or departments of the body which are more especially irritated; as, gastric, mucous, catarrhal, bilious, etc. All fevers are included which are not marked by any of those particular symptoms, or prominent and uniform groups of symptoms which indicate epidemics, or all fevers which are chiefly characterized by few or many of the symptoms, heretofore enumerated, which may be common to the various forms of fever.

Such fevers may continue for one, two, four, six, or ten days; or, under peculiar circumstances, may run on indefinitely. When prolonged, there is usually some degree of relaxation in the morning and exacerbation in the afternoon, evening and fore-part of the night. There may be indeed almost entire intermission.

The fever is inflammatory in its nature. It may commence abruptly with a severe chill, followed rapidly by extreme heat; or, it may commence and proceed with no chill at all; but, ordinarily, it begins with a sense of weariness and langour, followed or mixed with chilliness, after or in the midst of which, heat appears more or less gradually, with aching in the bones, back, and head; skin grows hot and dry; pulse quick, although it may be either full or feeble; tongue coated, breathing hurried; appetite impaired, or lost; sickness or nausea of stomach, with vomiting

of bilious, mucous, or watery matters, when the irritation involves more especially the liver and stomach; thirst; bowels ordinarily constipated; urine scanty and deep in color, and at the point of decline in the fever it often deposits a red sediment as it cools. In some severe cases, more especially of the bilious and gastric varieties, the stomach or whole abdomen may be distended and sore, and diarrhea may set in, which latter occurrence is sometimes favorable, being indicative of approaching convalescence; evacuations may be very deeply bilious; skin and whites of the eyes more or less yellow. The mind is often much disturbed, and sometimes quite delirious. The muco-gastric variety is more inveterate than the others, probably because it usually attacks elderly or enfeebled persons who are not so well able to resist, and because mucus accumulates and adheres to the mucous membranes; even the coating of the tongue may be of a mucous character, as in the bilious variety it is of a corresponding dark brown; mucus may also overload and clog the respiratory passages, and most likely fill the ventricles of the brain, which is indicated by the peculiar state of anathy and sopor in which the patients often lie. This phase of the fever is liable to continue a long time, and the recovery to be very slow and easily interrupted by errors in diet or unusual efforts or disturbances of the mind. It is quite liable to be mistaken for typhus.

All varieties of irritative fever are liable to run into or terminate in intermittents and sometimes typhus, especially in communities where these prevail.

TREATMENT. This fever appears much more formidable than it really is. The sense of prostration, distress, frequent inflammatory condition, and great apparent violence of many symptoms loudly threaten us with destruction, but it seldom comes. The patient does not often die. Treatment therefore, is not absolutely essential, although it may be important for the purpose of mitigating and shortening the disease.

Aconite is perhaps the chief specific in simple irritative or inflammatory fever. It presents clearly the following drug effects, which appear to correspond with many phases of the fever we are considering: Chill and heat; pulse failing at first, and perhaps intermitting, and afterwards increased and bounding in reaction; mouth dry and parched; coated tongue; aching in the bones, joints, back, nausea, retching, vomiting, prostration, weakness, anxiety, delirium, stupor, jaundice. And yet Baer, condemns it almost without qualification, and recommends chiefly,

Belladonna. This gives us indeed almost any sort of headache, anxiety and delirium; also weakness and prostration; somewhat of a febrile condition; weak and hurried pulse; a nauseated stomach; swollen and tender abdomen; increased secretion of mucous, more especially of nose, throat and bronchial tubes. These effects do not seem to cover the chief symptoms of any variety of this fever, while the leading characteristics of belladonna, (which need not here be recited) do not correspond at all. Aconite therefore remains at the head. But circumstances may often call for intercurrent remedies. As,

Pulsatilla, when the fever results from surfeit, and especially if mucous or bilious symptoms are prominent.

Mercurius is also adapted, and perhaps still more perfectly, to the mucous or bilious varieties. It covers moreover, loss of appetite, prostration, quick pulse, hot skin, sense of coldness, anxiety, headache, disturbed mentality, and turbid urine.

Bryonia represents loss of appetite, thirst, heat, tearing pain in the bones, depression of spirits, irate temper, painful mucus or bilious diarrhea. But the characteristics of bryonia are too sharp and lively in their nature to correspond with the ordinary state of this fever.

Santonine is applicable when there is evidence that worms (in children) aggravate, or have induced the disease.

Other remedies may be more or less appropriate, but we need not examine further, since we have probably referred to the best, and since the disease would ordinarily terminate favorably without drug treatment. If it should be complicated with some other disease, the matter would be more grave and serious, and treatment should correspond with the complications, what ever it may be.

L. Barnes.

THREE CASES OF INSANITY.

About a year and a half ago, from date of present writing, Aug. 8th, '73, there was admitted to the South Western Asylum for the Insane at Memphis, an Irishman, named Flaherty, a most violent and viciously disposed subject. He was as belligerent as any frequenter of "Donnybrook Fair" among his countrymen, and had succeeded in disabling two men before he was safely lodged in the Institution. He would wear no clothes, and amuse himself by tearing such garments as he had into tatters, and then binding the strips about his body, until he presented a zebra like appearance. He became so noisy and violent, that it was found necessary to confine him in the strong room, and hamper his movements still further by means of the straight-jacket. This was his condition for weeks, and he was certainly, one of the most unpromising cases I ever saw. Remembering Dr. Guernsey's characteristic of hyoscyamus: "the patient wants to go naked;" I suggested to my colleague, Dr. Allen, Physician to the Asylum, a trial of this rem-It was given in the 200th potency, two or three doses in as many days, and then allowed to act undisturbed. A perceptible mitigation of the symptoms took place during the first week. The improvement continued, and at the end of the second week, the patient manifested no dislike to wearing clothing. The ungovernable violence he had heretofore exhibited had all disappeared, and he was allowed the range of the ward with the other patients. He turned out to be naturally one of the mildest and quietest of men. and, in seven or eight weeks, was discharged thoroughly cured.

Shortly after the arrival of the above mentioned patient, there was brought to the Asylum a woman, about thirty years of age, the leading characteristic of whose insanity was desire to commit self-destruction. She had been rescued from hanging, caught as she was in the act of throwing herself from an upper window, but had succeeded in beating and bruising herself in a most distressing manner. This patient received aurum 200th, three doses, which promptly removed the suicidal mania, and though her case was of long standing, she was discharged cured three months after her admission to the Institution.

Another patient, a single man of thirty, upon his reception into the Asylum manifested the following symptoms: Settled melancholy, nervousness, and taciturnity, with disposition to quarrel if disturbed, worse in the morning. This patient received nux vom. 6th and 30th at intervals, and recovered entirely in a little over two months.

In treating the insane, my colleague, Dr. Allen, and myself, have repeatedly verified the following symptoms:

Bell.—Sudden change of mood from grave to gay, the patient will be in a rage one moment, and the next singing or indulging in immoderate laughter.

Hyos.—The patient will not remain covered, aversion to wearing clothing.

Aurum.-Suicidal tendency, great grief.

Nux vom.—Morose and taciturn, disposed to quarrel if disturbed.

Puls.-Weeping mood.

Lucius Morse.

Memphis Tenn.

PARALYSIS—A QUESTION.

The attention of the profession has, beyond a doubt, been called to the frequently occurring cases of paralysis within the last few years; all grades of it appearing, from the mildest to the severe and graver forms, and especially the large percentage of the severe and fatal cases. The mild cases yield readily to proper treatment, but the severe cases behave in their own way, terminating all alike, the disease laughing at the doctor's efforts, and taking its victim at its own pleasure.

With such a formidable matter on our hands to deal with so frequently, and as keepers of the public health, we would naturally look around for some probable and reasonable cause.

For one, I would like to hear the views of the profession upon this subject, and if it can be given an airing that will prove profitable to physicians or laymen, some good will be accomplished. With due deference to others, I will offer as one cause, the extensive use of tin cans in the preservation of acid fruits, giving an acetate of lead of sufficient potency to insidiously, but inevitably, bring its results. I will offer as another powerful cause, the extensive use of "hair restoratives," or whatever other names they may be known by, the base of all such preparations being acetate of lead and sulphur. It has been sometimes contradicted publicly, claiming that no lead or sulphur enters the preparation; but analysis reveals the fact. In both these causes, I think lead enough is absorbed, and in sufficiently attenuated form, to give us the fatal and slow lead-poisoning. If I am correct, should we not as a profession advise the extinction of these two causes? Use none but glass fruit-jars, and as for the hair, let it grow as Nature's best, under the circumstances.

Wauseon, O. C. B. HERRICK.

CASES IN PRACTICE.

Sick Headache, periodical—Sanguinaria²⁰⁰—Sepia²⁰⁰—Cured.—Mrs. H., age 56, housewife; called in Dec. 1872, with the following history:

Has been subject to sick-headaches more or less for thirty years, which have increased in frequency until now they occur every week (Tuesday), this has continued for about two months.

On the day before the headache begins, she has chills followed by a burning between the scapulæ.

During the night a sensation as if ice or cold water were on the top of the head, and at about 4 A. M. the pain begins (preceded by a soreness of the scalp), formerly in the right temporal region, but now in the top of the head, and from there extending down to, and locating itself in, the right temple; at times a severe ache, at others a heavy dull feeling or pressure.

At about 5 to 7 A. M. vomiting begins; some times of a sour mucus, followed by quantities of bile, and, at others, of bile the first thing.

Nausea constant through the day with alternate chills and flashes of heat; hands and feet cold. All her symptoms aggravated by motion.

Nausea and vomiting disappear about 7 to 8 P. M., but the pain continues some hours longer, but is gone by morning, leaving an exhaustion which takes several days to overcome.

Treatment; Sang., ⁵⁰⁰ Sepia; ⁵⁰⁰ powder of one in the morning and the other at night, for two weeks.

No return of attack since the prescription up to this date, June 23rd 1873, S. J. H.

Franklin, Pa.

A CASE OF POLYPUS NASI.

Susie B-, of Lancaster, Ohio, a girl ten or twelve years old was troubled with repeated formations of cysto-mucous polypi in the nose, which her physician was obliged to extract every two weeks. The physician was an allopathist, and in addition to the routine of using the forceps once a fortnight, he gave an internal remedy, which had the effect of so much molasses and water in checking this morbid growth. This treatment was continued for a year, without any success, when the father of the girl concluded to try the "little-pill doctor," and see if he could cure her. She came to me Feb. 13th, 1871, and on examination I found a polypus in the left nostril, of about a week's growth. I gave her a prescription. which did not prevent her having the polypus removed at the end of the fortnight as usual. But at the end of the next two weeks. there was no polypus to extract, neither has there been the least trace of one up to this day, making a period of two years and six months. Although it was evident, that the first two prescriptions cured the morbid tendency to the growth of polypi, I continued the same remedies for some time afterwards, to prevent a recurrence. The only remedies used during the treatment were calcarea carb. 3 trituration, and phosphorus 3 dilution. These were taken Sept-2

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alternately twice a day, a short time before each meal, and on going to bed at night. The cal. carb. was in powders of half a grain to the dose, and the dose of phosphorus was six pellets No. 25, making only a grain of the one and twelve pellets of the other each day.

Charles W. Babcock.

Lancaster, O.

THE GOOD OF DIAGNOSTICATING.

E. Younkin, M. D. (Eclectic Med. Jour.), enters extensively into the subject of differential diagnosis in intermittent fevers. amount of learning he displays about "quotidian," "partial," "catenating," "protracted," "anticipating," "retarding," "dialepsis," "duplicate," "triplicate," etc., etc., is something astonishing. says, "to diagnose a case of intermittent, we should learn to classify these varieties and place them under each distinctive head. I say that in order to be successful, we should know something about variations in disease. A careless and hap-hazard administration, may do for other schools, and no schools at all, but I am glad to know of the pride we have as Eclectics, in the study of proper diagnosis." How far he is helped in the matter of therapeutics by such rigid (?) diagnosis, we can easily see, when he says: "In the treatment of this disease, I select from the materia medica, quinine, arsenicum, chinoidine. If I know the time of the chill, I prefer the chinoidine, whether in recent cases or those of long standing." He does not say when he prefers quinine, and arseni-What the diagnosis has to do with his selection, does not ap-That it serves to display his learning there is no doubt. That it helps to cure the patient he makes no attempt to show. And no wonder; his pathology and treatment are alike unscientific; but they reach to the height of excellence attained by many "Precision in therapeutics" is a long way doctors of all schools. off from such men. So long as they maintain their present mode of treatment, their talk about exact diagnosis is all fustian.





Dr. Henry R. Roberts (Med. Invest.) projects the theory that, "Asiatic cholera is a disease of the nerves and not of the bowels at all." Leaving off the last two words and qualifying the statement to the effect that the bowels are only secondarily involved, would make it more reasonable.

"The body," he says, "is supplied with three systems of nerves; those of the sensient system, the muscular, and the circulation. The disease known as cholera, is a derangement of that system controlling circulation, by which the blood ceases to circulate in small vessels on the surface of the body. The consequence in the first place, is a peculiar shrinking and corrugation of the skin, debility and coldness. This may occur without any great disturbance of the general health for a time at least."

Ophthalmic and Aural Surgery.

CASES FROM PRACTICE.

CASE 1. Opacity of Cornea—Canthoplasty—Calc. carb. 30—Recovery.--H. A. 21 years old. Eight years ago a cloudiness of the right cornea was first discovered by a friend. This gradually increased up to the present date. No cause could be assigned for the trouble. It was treated heroically by an allopathic oculist but with increase of pain and cloudiness, and considerable temporary inflammation. The patient then applied to Dr. M. H. Slosson, by whom he was greatly benefited. The opacity still remaining. treatment was abandoned for several years. Coming again under Dr. Slosson's observation, the patient was directed to apply to me, which he did reluctantly. The opacity appeared like three irregular milk-white clouds, in the middle layers of the cornea. The conjunctival layer did not appear to be affected. Vision much impaired. Use of the eyes produced pain in the right eve. A scratching feeling about the centre of the upper lid was the most prominent symptom.

Upon close observation no cause could be detected except a slight projection of the affected eye ball. Over this it seemed the upper eye-lid was drawn unduly tight. The patient consented to an operation, and the outer canthus was slit and stitched in the usual manner. By that means the tension was perceptibly diminished, and the canthus carried nearly an eighth of an inch further outward. In forty-eight hours after the operation, seventy-five per cent of the opacity was gone; in two weeks the cloudiness could not be seen except upon close inspection. The eye now feels well and looks clear. The patient was given calc. carb. and kept upon the same, two doses a day for a month. The result was pleasing to patient and doctor. The same medicine has been taken before without effect.

T. P. W.

CASE II. May 25th, 1873. Frank B., aet. 20, occupation druggist, general health good.

About three months ago he was attacked by a slight pain in the back part of the orbit, near the optic foramen, with photophobia. All symptoms steadily increased up to the present time. The opthalmoscope reveals no change interiorly. The photophobia now is very great, the bright sun is unendurable, great pain through the temples, great soreness through the back part of eye balls. When they are changed from their natural position (that is looking directly forward,) to any other position, it produces a very severe pain, with sensation as though the globes would be torn from their orbits. Pupil slightly contracted, with this exception external appearance normal. Treatment, macrotine two drops per dose, every two hours.

June 10th. All symptoms are relieved. Photophobia entirely gone, no pain in temple, little soreness at back part of the eye balls when moving them. The same treatment continued every three hours.

June 17th. I saw my patient to-day, he considers himself well.

This remedy was the only one used in the case. The case was also treated under unfavorable circumstances, he remained in the store and attended to his daily duties during the whole course of treatment.

F. B. Sherburne,

Bellefontaine, O.

HASSENSTEIN'S AURAL SPECULUM.

Our readers will remember that in the March No. of the AD-VANCE, we gave a description of the above instrument, and spoke in high terms of its value in making examinations of the tympanic membrane. It is now over two years since Prof. Buck of this city made us a present of this instrument—the first we ever saw. After satisfying ourself by repeated trials, that there was real merit in the instrument, we took occasion to present it to the American Institute of Homœopathy at its meeting in Philadelphia. But like some other things we presented at that session, it was not favorably received. The chairman of the bureau through whom it was presented, recommended and substituted in place of it, an inferior instrument. Subsequently, we showed the speculum to aurists in New York, and several prominent gentlemen of the profession in the West. Without exception they failed to look favorably upon it.

Some weeks ago, a distinguished specialist procured one agreeably to our recommendation. Some days afterward he writes us:

"If you know of any one who wants a Hassenstein Speculum send him to me. The thing don't work. Yours, much disgusted."

Our reply set forth a full explanation of the method of working the instrument. Begging him to persevere, we asked him to report again. Two weeks after, this letter came to hand:

"MY DEAR SIR:—God bless your enthusiastic soul! I have had a splendid Hassenstein seance' this morning, and got four of the prettiest pictures I ever looked at. I don't hit the focus every time yet, but am getting more used to it every day. Improvement? Thunder and Mars! I should say so! Why when I get a bead on the thing, I am like one riveted. I can't look too long. I am like a child with a yellow wooden monkey. More anon."

Directions for using the Speculum are very simple. Place the light behind the patient, and on a plane with the meatus. Notice as you revolve the instrument, placed in the ear, that a light is reflected on to the side of the head. Now turn it until the bright spot runs down into the meatus. Then if you look in,

there will be plenty of light. Now take the patient gently by the occiput, and turn the head until the tympanic membrane comes into view. If the result be not satisfactory, you are at liberty to cut our acquaintance.

CHRONIC OPHTHALMIA.

I have had several cases of ophthalmia, the form of which I have not seen fully described in any of our works on the eye. I will cite one case that will do for all, the treatment in all were the same, each case had nearly the same symptoms.

Sela F. aet. 5, general health good, and of healthy parentage, was placed under my care August, 1871. She had been afflicted with disease of the eyes for three years. Allopathic treatment had been resorted to, for lo! these many years, to no avail. On examination, found the entire conjunctiva very much inflamed, the lids much swollen, no granulation; the cornea was perfect in every case but one, which was thickened, rough, and cloudy, and of a milky white (no ulceration in this case). Photophobia, and lachrymation were the prominent symptoms in this case, and in all others of this class, the sun-light was unendurable, and the least amount of it would produce great lachrymation; there was not the least accumulation of pus of any nature; some smarting, itching, and burning, and sensation as of sand in the eyes.

Treatment. Caus.⁶ and macrotine³ internally in alternation from one to three hours, a simple collyria of sul. zinc, one grain to the oz. of water, applied by compress until the inflammatory symptoms subsided, with frequent bathing until all irritation was gone. As soon as the photophobia was relieved, mac. was discontinued with caus. continued every four hours until entirely recovered. The little patient at the end of four weeks was discharged cured. No relapse to present date, June, 1873.

A simple collyria of nitrate of silver, one grain to the ounce of water, used in the same manner as the zinc, for the first application with no marked improvement, and have tried it in several other cases to no avail, immediate relief was always derived from the application of zinc.

F. B. Sherburne.

UNITY NOT ANTAGONISM.

It is but recently the first attempt was made in the homœo-pathic school to practice in diseases of the eye and ear as a speciality. The success of the plan so far, is its own best defense, provided any one was disposed to oppose it. But fortunately no one is so inclined. There is danger however in this particular: if we are not careful, a spirit of exclusiveness and superiority is liable to be engendered. The specialist may feel a poorly concealed contempt for the ignorance of the general practitioner. Even young men, just out of ophthalmic schools, may put on airs distasteful to the older members of the profession. It must be conceded, that an old man's experience and common sense are worth something, even when overshadowed by the diploma of a newly-fledged specialist.

Another danger is that specialists may be looked upon as endeavoring to deprive the profession at large of its rights, both as to knowledge and practice. If we take this department and wall it about so as to admit only the select few, and load down the subject with a nomenclature and perplexing technicalities, we will not stand approved before our brethren. If on the other hand, we thoroughly investigate what they have so long neglected, if we make important discoveries in pathology and practice, if we strive to make every possible improvement to our art, and then put these generously into the hands of the profession, we will be hailed everywhere as invaluable aids, and every where welcomed as worthy co-laborers. And this is the true position of specialism to-day as we understand it. We are at one with medical men everywhere, and give and take alike, to and from the accumulated wealth of Medical Science. T.P.W

ALCOHOL is recommended for purulent ophthalmia. The usual strength is one-third alcohol to two-thirds water. It is applied to the everted lids with a brush, or, with a fine syringe, s injected under them. Success is said to be excellent.

It is hardly to be supposed that a physician even, much less a layman, not having given the subject careful attention, is fully conscious of the important advances that have been made within the last few years in the department of ophthalmic and aural diseases. But when a doctor, who has no special knowledge of the subject, says to his patients, that he can treat these diseases just as well as any body, and that they have no need to apply to a specialist, and that under his treatment, they are much more likely to get well, he certainly does not exhibit a high degree of knowledge, nor show the most commendable judgment.

What does he know of hypermetropia, and how long will he in curing it, or in meeting its indications by the use of his carefully selected remedies? What does he know of glaucoma, and to what will he attribute the blindness that is sure to result? He will never suspect his ignorance, nor the need of a prompt oper-How long will he be in curing a blenorrhea of the lachrymal sac, and will he ever succeed in relieving a stricture of the nasal duct with his potencies? How many cases of iritis will he be let end in permanent adhesion to the lenses? Can he cure chronic aural catarrh by medication alone? And does he know in a given case whether the difficulty is located in the external, middle or internal ear? If he knows all these things, it is because he has specially studied them, and so he is a well informed specialist. We are talking about the man that doesn't know, but says he can treat them as well as anybody, and we want him to answer our questions. T. P. W.

CANCRUM ORIS, a very fatal disease among children is, according to Dr. Throop, easily diagnosticated by a hard lump in the substance of the cheek, with a gray appearance of the slough inside, and a putrid smell from the mouth. Chlorate of potash has signally failed to cure. Dr. Burdick, (N. Y. Hom. Jour.) thinks from his experience—his experience is not related however—Cantharides is the remedy. Dr. McGreeve, (Brit. Med. Jour.) reports hydrochloric acid locally, in full strength, upon the ulcer, as a very successful remedy. Dr. Hedges, (Med. Invest.) reports two cases cured by Sulphuric acid; locally and internally. "The diet is mportant;" it should be chiefly vegetable.

Chemistry and Pharmacy.

ON SOLUBILITIES.

Having stated a few of the principles in physics which accompany solution, we shall state a proposition regarding its nature, which subsequent investigation may not confirm. But we are brought to this present conclusion by the conditions mentioned heretofore, and by grouping those unsolved problems in physics which bear a relation to our subject.* The associated problems which are partially solved by this proposition are, first, the changes which accompany the

SOLUTION

Itself, which in the ordinary sense, is the disappearance of a solid substance in a liquid. There is an occupation of the same space at the same time. There is an abundance of interatomic space, (or inter-molecular) as evidenced by the fact that pressure or cold would change the liquid to a solid with great condensation, which again may be illimitably condensed by the same processes. From the fact of this indefinite condensation of molecular or atomic space (for the atom cannot be condensed) we know that the atom itself is relatively infinitely smaller than any known inter-atomic space. We also know that nature "abhors" a vacuum: but even suppose nature does not, we have a condition presented to us by immersing a "soluble" substance in a fluid in which the atomic attraction of gravitation, or the atomic attraction of adhesion (if such a thing exists), or an independent atomic attraction hitherto unnamed, draws atom to atom, and fills the inter-spaces until saturation takes place. Now is this attraction Gravitation, Adhesion, an indefinite force, or the natural opposition of nature to a vacuum? Gravitation would not tend to draw the atom upwards under such conditions. It might not tend to draw them

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^{*}The proposition is this: Solution exists in a multitude of forms—a liquid in a liquid, a solid in a liquid, a liquid in a solid, a solid in a gas, a gas in a solid, a gas in a gas, etc.; and that the cause of solution is the tendency of atoms to rush into and occupy the larger inter-atomic spaces of other substances.

[†]Excepting water which will be spoken of hereafter.

downwards, on account of the interposition of static gravity by the molecular structure of the solvent. But of this we only have vague conceptions.

If molecules of the soluble substances were lighter than the molecules of the solvent, then gravitation would tend to displace the former by the latter, and force the former upward, but this is not universally the case.

Adhesion, if there be such a force, might appear at first to satisfy the question. But upon inspection it totally fails. Adhesion is a force which acts at minute distances only. Solution carries a direct stream of dissolving substance upward for inches, as may be witnessed by the solution of clear crystals in clear water, and watching the refractions of light above them. Adhesion never destroys the molecular relations of matter, solution does utterly. Solution will draw many substances attracted to others by adhesion, as the evaporation of water upon a wet finger. We shall soon attempt to show that while solution is not adhesion between individual molecules, adhesion is an attempt at solution.

But with that known disposition of matter to fill all space with matter; the relatively large vacui between atoms; the comparatively minute atom compared to these interstices; the varying powers of solubility possessed by matter; the physical characteristic of the dissolving stream, as witnessed by light refractions; the tact that the atoms or molecules are distributed with remarkable evenness through the menstrum, each inter-space having its proportion—however great the solvent or minute the dissolved matter; the fact that saturation takes place at all, indicating that a stopping place is reached when something is full; saturation being attained by solution of a small quantity of one kind of matter, and a very large quantity of another kind, indicating that it is not the "satisfaction" of adhesion; all these facts lead us to suppose that solution is the rushing of atoms of one substance into vacui existing in the inter-molecular or atomic spaces of matter.

The power of this force is always the same; but the atomic and cohesive conditions of each modify the exercise of the force. For instance, an atom may be very large, and the atom of the menstruum very small, and its inter-space consequently smaller. Or the cohesive force of matter very strong, so that it successfully resists the sucking force of solution.

CRYSTALLIZATION.

It is a well known fact that when salts crystallize from solution, a proportion of water enters into the composition of the crystal. This "water of crystallization" is definite in quantity, and an absolute essential to the formation of the crystal. Of course the volume of the salt is increased by this union, and if the water is forced out by means of heat or otherwise, the salt becomes amorphous, and resumes its original weight and volume. Now is it not possible and quite probable, that water of crystallization is held in position by that same antagonism to a vacuum which suspends a solid amid the atoms of a solvent; that the molecules in assuming geometrical position do so by virtue of certain "nooks and crannies" being filled by water molecules, which thereby appear to assume a solid condition—and in fact do do so? Is it not a solution of a liquid in a solid, under the definite laws of crystallization? There are other illustrations of the solution of a liquid in a solid, as the effect of mercury on zinc.

THE DIFFUSION OF GASES

Appears to be another illustration of the same general law. Are not the vast spaces between the atoms of gases vacui? Are they not immense cavities, relatively, when we consider that the lightest gas may be condensed to a metal solid? Then why is it impossible that another gas should also rise within those vacui and extend—not "illimitably, on account of their repulsive forces" as philosophers have told us, but to the extent of their static cohesions, as established by that active heat which we read of as "latent?"

CAPILLARY ATTRACTION

May possibly come under the same general principle. Capillary attraction defies gravitation. We repeat a statement made before in substance—matter in small division will rise in lighter surroundings—yet one of the earliest philosophical laws, established by direct test by inquisitorial judges, was that an ounce would fall as quickly as a ton of the same substance. Yet very small particles of silica float in the air, and lead, and iron and gold! The air cannot support these, as we are told, for were ever so fine a film beaten out to obtain a million times more atmospheric support, it would fall! Are not these fine particles sustained, or raised in fine

tubes, attracted up the sides of vessels, etc., because the inter-molecular relation of one substance is such as to induce the entrance of the molecule of the other. And this brings us to the subject of ADHESION.

Adhesion does not possess properties which lead a student to suppose it an atomic attraction. Indeed it appears quite otherwise-Let the reader fix in his mind the idea that atoms of the densest substance revolve freely—move in their "sphere" freely—with abundance of space about them. That even the atmosphere is drawn up, atomically, snugly against these "spheres". Let another substance with smaller atoms, or with atoms smaller than these wide inter-spaces be brought into apposition. Would they not endeavor to enter? If the cohesion of the substance were weak enough, and the spaces large enough, there would be a solution. But if cohesion was strong, or the spaces barely large enough, there would be adhesion.

THE ATOM AND THE MOLECULE.

It is well to preface a knotty problem with a good natured story or two illustrating the fact that this is peculiarly an age of progress, in which the best of men are not sure of their foothold. A great many scientists and semi-scientists are extremely fond of criticism—that is to play critic; and all have less faith in what they don't know, than in what they do know. The writer once had a quasi-editorial connection with that staunch and successfu journal, the Observer of Detroit. In one number he bled somewhat copiously over Carbonic Disulphide, or Bisulphide of Carbon, calling it by the latter name. Dr. O. W. True, (we think he lives in Maine) took us up for using such an old fashioned, and from the modern outlook, incorrect name, stating that the proper name should be Carbonic Disulphide. Well-we angered at once.—that some "country doctor" should fly at us from behind some antiquarian shelf, and tell us, us, right from the laboratory, what to call anything! So to publish his simplicity,

we printed his letter, and following it, banged away with Fownes (old), Silliman, Fresenius, Bowman, Buckhart, even Gray, Taylor, Wills, and Wells—oh a dozen of regular hard-shell Chemistries, all agreeing with me—winding up triumphantly! Well, about thirty days after that we got hold of a modern work, and lo! the new nomenclature, which has transformed every chemical text book, hauled down our flag, and we have dreamed ever since of Dr. True's sardonic smile which doubtless welcomed the battery of authorities and assumption of learning.

The other day a gentleman came into the office of the Editor of the Advance, and picking up a proof sheet of a new chemical work being published at our office, read the word "atom." In an instant he was transfixed with surprise. "What" says he, "publish a book in this day, on the basis of the atom—the simpleton! he's behind the age! why the science of chemistry has been revolutionized! tell him to get 'Hoffman's Introduction to Modern Chemistry' and then destroy those page plates."

Dr. W. said little, but as soon as we met remarked that the book was severely criticised, etc., etc. Dr. True sprang into my mind at once. I trembled! Sixteen pages were already stereotyped! Was it possible—Chemistry revolutionized within a year? Ampe're, Barker, Roscoe, the new Fownes, Attfield, a hundred others, rendered false and ludicrous? Hoffman was ordered—nay, it was temporarily drawn from a library—and our poor brain quieted with the title page—anno domini 1865. (It is now 1873.) Our friend was mistaken this time. He had picked up an ordinary work, and gone crazy over what was old to science, and but an item of the whole.

This is all given to introduce a criticism on the universal adoption of the new "nomenclature," as it is called, although at the present day it has become almost universal. The basis for the adoption of this new chemical philosophy, is the law of "Ampe're," stating that Molecules of all bodies are of the same size, when in the gaseous state, and hence that all atoms in binary, ternary, quarternary, and all similar molecules, are of the same size. From Barker's Chemistry, page 10 are given the reasoning by which the character of the molecule is ascertained:

"20. Number of Atoms in the Hydrogen Molecule.—Assuming that one volume of hydrogen contains 1000 molecules, then by Ampe're's law, one volume of chlorine will contain 1000 molecules also. If these volumes be mixed together and exposed to sunlight, they combine to form two volumes of a new substance, hydrochloric acid gas, which two volumes of course, by the same law, will contain 2000 molecules. Upon analysis, each molecule of hydrochloric acid gas is found to consist of two atoms, one of hydrogen, the other of chlorine. The 2000 molecules therefore, will contain 2000 hydrogen atoms and 2000 chlorine-atoms. But the 2000 hydrogen-atoms came from the 1000 molecules in the original volume; and the 2000 chlorine-atoms came from the 1000 chlorine molecules. Each molecule of hydrogen must therefore have furnished two hydrogen-atoms; and each molecule of chlorine, two chlorine atoms. Hence a molecule of hydrogen is made up of two atoms.

"Upon analysis, each molecule of hydrochloric acid gas is found to consist of two atoms, one of hydrogen, the other of chlorine."

Now we are appalled at the nature of our interrogatory to follow. Appalled just as that savan must have been, who asked the French Academy when discussing the fish-tub problem, if it were so! How do we know whether there is one hydrogen and one chlorine, or one hydrogen and 40, million chlorine? Who analyzed that? Sure enough there are two kinds of atoms, but as to the necessary number of each to make a molecule! May it not be ten to one? or one to ten?

Now if some Dr. True does not vitiate our vanity, we'll ask another question, next month.

Fish.

THE AQUARIUM QUESTION.

Some questions apparently simple stumble upon philosophers when they are napping, and they are forced to think seriously of a topic, which at first they would scarcely notice for its simplicity.

The "Aquarium Question," asked in the May Number of AD-VANCE is such a question. In our room is an aquarium. It is constructed by placing in a wide glass dish, a common globe aquarium inverted. The water has been sucked up into the elevated globe, and fish, placed in the lower and larger dish, sport themselves most of the time in the globe.

Now the question occured to us—was there more oxygen in solution in the upper stratum of water than in the lower? And this brought us at once to the problem to be solved. "Is the water at a denser, rarer, or at the same density as the outer surrounding atmosphere?" (See cut in May no.)

Those older and learned scientists to whom the question has been personally put, have generally given us all the way from two to six different answers to the question, while a few have delayed answer by stating that the question was altogether too simple for serious consideration. But we have received a few notes, and we give them, under a promise to use no names, lest upon a "sudden enlightenment" their ideas should indeed appear "thin."

Dr. F., near Toledo, writes as follows:

THE AQUARIUM QUESTION.—The attraction of gravitation approximating the atoms of air outside the bell-glass, continues to act upon them inside the glass through the medium of the water. This medium, by its greater weight, limits in degree the atmospheric pressure upon the confined air. Were the bell-glass forty feet high, with the same quantity of air inclosed it is plain there would be a great loss of density. The same ratio must exist be the glass what height it may. If it loses density in the one case, it will in the other, though the amount of loss in the question given is probably so small as to be almost inappreciable. The confined air is consequently more rarified as the distance between the top of the glass and the surface of the body of water acted upon is increased. While the nearer the bell is brought in apposition with the water, the more will its original density be restored.

Dr. H. says:

"The air upon the outside is pressing the water up with force enough to carry it 33 feet, but its progress is stopped by the confined air, hence this confined air is condensed by the air outside, which is heavier, with the given area than the few inches of water."

Mr. F. says:

"If the bell glass is filled entirely with air, there is a perfect equilibrium. The portion of water is heavier than air and bears down, rarifying the confined air, till a point is reached between this greater weight, and the elasticity of the air."

We give one more, which was written us incog:

DEAR SIR:—The air is the same inside as out. The outside pressure is just "so much." And it is exactly counterbalanced by an equal amount of water, without any regard for air enclosed.

REMARKS.

We will give no opinion yet regarding the question, nor the results of certain operations, but wait for more "news."

Dr. H. does not realize that although the attraction of gravitation would force water 33 feet if all inside atmospheric pressure were removed, still in this case, the inside pressure is not all removed; that there is an equilibrium established. According to his idea, if the glass were FULL OF WATER, with no confined air, the outside pressure should force the vessel right up 33 feet high!

Dr. F. says, "if the bell-glass were 40 feet high, with the same amount of air enclosed." But that alters the proposition. It should be stated thus: "If the bell-glass were 40 feet high with seven feet of air enclosed."

Mr. F. presents a proposition worthy of note, although indistinctly stated. Is the equilibrium established a balance between the two elements—water on the inside, and air on the outside, or does the elasticity of the confined air, (either resistance to compression, or tendency to expansion,) modify the equilibrium?

The last writer merely makes an assertion. Fish.

Surgery.

ULCERATIVE ABSORPTION OF BONE, RESULTING IN SPONTANEOUS FRACTURE.

CASE No. 3.—J. H. an allopathic physician of this city, aged 59, of dark complexion and fine physical development; had enjoyed excellent health until the summer of 1866; when he began to suffer from wandering pains in the left thigh and leg. In the autumn of that year they became more severe; and during the winter, seemed to concentrate around and above the outer con-

dyle; these were to some extent relieved by the application of strong liniments; and were followed by a dull, heavy, aching pain in the part, with, occasionally, darting up or down the limb. The urine was large in quantity, highly colored, and deposited a quantity of whitish red sediment; which was readily dissolved on the addition of a few drops of nitric acid and the application of heat. These conditions continued without material change, until the 12th of June, 1867: While standing before the glass dressing himself, suddenly the limb gave way, with a sharp pain, and he fell to the floor, with a fracture of the left femur, at the junction of the lower and middle thirds. The upper portion of the bone pressed outwardly, and caused an extensive laceration of the flesh; but did not perforate the skin. His wife and son assisted him to a lounge in the room, and dispatched for a surgeon; who, upon examination pronounced it a case of spontaneous fracture, and gave a very unfavorable prognosis.

On the fourth day, an abscess had formed on the outer aspect of the thigh, which, on being opened, discharged a pint or more of bloody, saneous pus; explorations with probe disclosed necrosed bone and numerous fragments were readily removed having deep erosions upon the surface, showing that the disease had been in progress some time before the accident. The thigh was placed in a gutta-percha splint moulded to its shape, and dressed with water dressing; at the end of two weeks, some more loose pieces of bone were removed; others still remaining, the opening was extended, and several attempts were made at their removal, but without success. The pus which had been discharging profusely, was not at any time of a healthy character; presenting most of the time a creamy appearance, in which were mixed dark specks, perhaps small clots of blood, and spiculæ of necrosed bone. These conditions continued with but slight improvement until October, when he discharged his surgeon, and employed an old friend, a root and herb doctor, under whose care, after a period of about eight months, he was able to use the limb in walking, with some shortening of the thigh. A twelvemonth thereafter the injury was apparently repaired, in which condition it remained until April of the present year (1873), when it gave Sept-3

evidence of further trouble, and commenced discharging at a point near the old cicatrix.

The point of special interest in this case, as compared with cases one and two heretofore reported, consists in the fact that here a free exit of matter was provided for, and the danger of pyæmia averted; had the true condition of cases one and two been recognized, and the pus discharged by a free incision, or perforation with the trephine, if necessary, a very different result might have been secured.

Dr. E. C. Franklin, in his late work on surgery, denies the absorption of bone pus. I trust that we will be able to present such facts upon this point, as will secure a reconsideration of that opinion, by the learned and worthy Doctor.

O.

A QUESTION FOR SURGEONS.

Among the most marked improvements (and they are many,) in dentistry, is the invention of the Morrison Dental Engine. It is really quite astonishing to see, with what ease, a cavity can be excavated and made ready for filling. We presume all firstclass dental offices are now supplied with this valuable and indispensable agent. It struck us-though not in a painful waywhile sitting in a dental chair and undergoing the operation of preparing sundry cavities for plugging, that here was an instrument that might have, and should have, a wider range of usefulness In the hands of the surgeon, it seems to us, it would be an admirable agent in removing necrosed bone. In order to remove such products of necrosis, when it is even small in quantity, it is necessary, following the ordinary modes of surgeons, to make pretty extensive cuttings into the soft parts, by that means greatly endangering important blood-vessels and nerves. We have seen not infrequently great danger incurred, and in some few instances, disastrous results follow such operations, In cases in which the amount of necrosed bone was small, and deeply seated, it could easily be reached by this instrument, and with no special disturbance of the soft parts. Allowing this to be true, it will need no argument to show what an immense advantage would be gained in

the matter of operating. Without waiting to give the instrument a thorough practical test, we make this suggestion, in hopes that those who have abundant opportunity, will give it a fair trial. The particular mode of its operating, can be seen in the office of any dentist who keeps up with the times. Spencer & Moore, of Cincinnati, will furnish needed information. For strictly surgical purposes the engine might, we presume, be somewhat simplified.

BOOK NOTICES.

Insanity in its Relations to Crime, a Text and a Commentary; By Wm. A. Hammond, M. D. New York, D. Appleton & Co., 1873.

Medico-legal investigations are generally so managed as to bring the doctors into disrepute. From the beginning the lawyer has the advantage. If legal enactment could determine the exact physical condition of the individual, the case would be different. If the law should establish a rate for the pulse, and respiration. then one would have only to consult his chronometer with his finger on the pulse of the "investigated" individual, and by examining the law come to a different conclusion. There would still be room for the doctors to disagree as to the interpretation of the law. but there would be some one to decide matters in dispute, and no longer any excuse for cutting each other's throats—as it were. The testimony which the physician gives in such cases is usually a matter of opinion, and the next witness called may be of a different opinion, although in either case, the weight which such opinions would carry with the court or jury, would depend on the general and specific information of the witness, his reputation for learning, and the conformity of his testimony to standard authors. It not unfrequently happens, as in some recently alleged cases of poisoning, that the whole question becomes so muddled on account of this conflicting medical testimony, that even the sharpest law. ver is unable to make a point out of the matter.

f this condition prevails in the investigations of questions appealing solely to chemistry or physical science, when analysis and demonstration are so largely concerned, what should we expect in the investigation of cases which from their very nature, almost exclude demonstration, and where, until recently, exact methods have not been so much as attempted, but when conjecture and speculation have run rampant, and where the most absurd opinions have found advocates and even the garb of authority.

During the past century remarkable changes have been wrought in the treatment of the insane, and as a result a large number of cases hitherto regarded as incurable, have been restored to society in their right minds. Without going into details, this change is the legitimate result of a change in modes of investigation, and advancement in physiology, or the application of known physiological law to mental function. In criminal courts the piea of insanity has been subject to many abuses, owing to the character of the evidence in such cases, no less than to the uncertain nature of the cases themselves, and it has very naturally resulted, that earnest men, in both the medical and legal profession, have been led to inquire whether a better adjustment of the legal and physiological sides of the question could not be reached. This "Text and a Commentary" of Prof. Hammond's is an effort in that direction, and has many points of excellence. The writer does not attempt an exhaustive treatise of the relations of insanity to crime, but he nevertheless states a few points which must ever be foremost in all such discussions, in a manner so clear and forcible as to deserve more than a passing notice. After reciting a few cases the writer proceeds with his "Commentary." First, "What constitutes a crime? 'Crimes are only to be measured by the injury done to society'." "Law being only a set of rules and regulations, by which society agrees to be governed for its convenience and protection, and there being no other guide as to the restraints and obligations of the individual members of society, it follows that a crime consists wholly and exclusively of a violation of law." 1 "Such being the nature of crime, * * * it follows that the object of punishment is chiefly the safety of society." This object is secured in two ways, viz: the effect upon the criminal and the check thus placed on the tendency to crime in other individuals.

1 Page 45.

Violation of law is criminal, whatever the intent of the accused, or under whatever delusion he may labor. Society in its attempt at self-preservation enacts certain laws, to the violation of which it attaches certain penalties. Ignorance of law is not allowed as a valid excuse for its violation, and the insane impulse is so variable in its manifestation, so difficult to apprehend and so liable to abuse, that it becomes a matter of great importance to society to determine when and how it should be allowed.

"In reference to such instances—and there are many more which it would be easy to bring forward—the scientific and legal questions to be considered are very different, and a great deal of the practical difficulty attendant upon them arises from the efforts made by physicians and jurists to reconcile pathology with law. Such attempts must always fail, for the reason that the professors of each science look at the subject from entirely different standpoints, and are actuated by different motives. The one class seeks to establish the existence of disease, the other is engaged in the effort to protect society. Both are right, but the views of neither should prevail to the exclusion of those of the others—for an individual may be at the same time insane and responsible for an infraction of the law."

"Although not a test of insanity, the knowledge of right and wrong is a test of responsibility; and by knowledge of right and wrong is not meant the moral knowledge that a particular act would be intrinsically right or wrong, but that it would be contrary to the law; or rather the individual need not actually have this knowledge, but, so far as his mind is concerned, he must possess the capacity to have it. For ignorance is no excuse, and the safety of society imperatively demands that all should take means to make themselves acquainted with the laws of the land in which they live. Now, any individual having the capacity to know that an act which he contemplates is contrary to law, should be deemed legally responsible, and should suffer punishment. He possesses what is called by Bain, punishability. If he does not possess this capacity, then he ought not to be allowed to go at large, for he is a greater enemy to society than one who with evil intent has nevertheless sufficient reason to guide him."

"The only forms of insanity which, in my opinion, should absolve from responsibility and, therefore, from any other ment except sequestration, are such a degree of idiocy, dementia, or mania, as prevents the individual from understanding the consequences of his act, and the existence of a delusion in regard to a matter of fact which, if true, would justify his act. Persons suffering from either of these forms of mental derangement should, in the interest of the safety of society, be deprived of their liberty."

On the whole the relations of insanity to crime are handled in a very clear and comprehensive manner, and the value of the work to the professions or to the general reader, is rather enhanced by the fact that it is all comprised in 77 pages. Its usefulness would still be much increased, by the addition of an index, and a classification of topics.

J. D. B.

A Manual of Homosopathic Veterinary Practice. 1873 Messrs Bæricke &Tafel, the publishers, have placed us under lasting obligations for the very elegant manner in which they have brought out this much needed work. We are not possessed of the secret of its authorship, but we are well satisfied that the work has been prepared by competent hands.

From the preface we learn; "The design of the work is two-fold—including as it does the whole care of domestic animals in health, and sickness. The first part therefore, relates to the choice, feeding, training and breeding of the animals and fowls useful to man; while the second part, deacribes the various forms of disease, and different casualties to which these animals are liable, designates the principle remedies and their chief indications, and suggests the proper dietetic and accessory treatment."

Unless there is an essential difference between human beings and inferior animals, in regard to their diseases and treatment, the book is not without serious faults. The chapter on diseases of the eye, clearly shows that horses and cattle are not afflicted like mankind, or the author is not well read in this department.

The large cut of the Eye that adorns an entire page, must have been drawn in the dark, or at random by one not at all versed in the anatomy of that organ.

The chapters on the English Rinderpest, and the late Epizootic are especially valuable.

The work as a whole, is unrivaled, and will meet with favor everywhere. It is a God-send to the poor brutes, who are often abused when well, and treated cruelly when sick.

Miscellaneous.

LETTER BOX.

"Some time ago I had concluded that I was taking about as many of our medical journals as I could afford to subscribe for, or have time to study. But progress in medical science has always deeply interested me, and the title of the new monthly gives me assurance that I shall find much that is both new to me and profitable in its pages.

As I am chiefly interested in the study of medicine, I shall hope that the *scientific* matter which shall be published in the ADVANCE will be carefully selected, with reference to the more immediate and obvious relations of science to medical progress.

I am glad to perceive—at least I think I do clearly—that the "Medical Advance" is not published in the interests of "Pure Homœopathy" solely, and that it proposes to assist in the progress of that "science of medicine" which is "older, broader and higher than Homœopathy." I like such out-spoken independence. But I shall be disappointed if the "Medical Advance" shall stop with these declarations, and shall fail to illustrate in its pages that more comprehensive science of therapeutics. I find no illustration of it in the two numbers before me. I am pleased with the articles I have read, but with the exception of the editorials and the article headed "Pure Homœopathy," I have found nothing medical which was not on the side of "Pure Homœopathy."

I have never succeeded fully in being a strict homeopath, although I have tried hard to be one; and have, at times, been obliged to acknowledge my indebtedness to old school therapeutics. I don't wish to be a hinderer of medical progress, but I am troubled with a practical notion that, however good it may be to go forward in the company of the learned, I should always see

the ground upon which I am going to step. It is refreshing sometimes to look up, but, for me, it is most safe to keep my eyes directed towards objects beneath as well as before me.

I have enough of reading matter pertaining to pure Homœopathy; and shall expect to find in the pages of the MEDICAL AD-VANCE a good portion of that broader and more comprehensive practice—clearly exhibited—which a practitioner of Homœopathy cannot afford to be ignorant of. And I shall expect to find some demonstration of the fact, that medicines have uses which our method of proving and the application of the homeopathic law could never probably exhibit. Granting that Homeopathy is good, let it be demonstrated that Homœopathy and something else is better. I read with pleasure the address of Dr. Jno. F. Grav, before the Medical Society of the State of New York, in August, 1871, in which he counsels scientific impartiality; and I had heard for a long time that Dr. Gray was not a practitioner of strict Homeopathy. But I am not aware that in the last twenty years Dr. Gray has published an article in a medical journal. Who knows anything about his individual experience? It gives us pleasure to recognize a philosopher, but we are better satisfied if we know that the philosopher is also a practical man, whose practice is better than that of a man who is not a philosopher. Our liberal homeopaths have not been conspicuous by their labors in the cause of medical advancement, and if they shall suffer the strict Hahnemannian to till the soil and gather the harvest, while they look on, smile, or turn away in scorn, it seems hardly fair to call them hinderers of progress." H. R.

"I should like to see something in the ADVANCE, on the combination of different potencies of the same remedy. Has it any advantage, or otherwise?"

We believe the distinguished promoter of this plan, who presented it to the profession so enthusiastically a few years ago, has abandoned it and gone into the work of re-proving the materia medica. Our somewhat extended experiments with the method did not confirm our opinion of its value. We shall be glad to hear from any who thinks well of such a plan.

"I like the ADVANCE, notwithstanding I see things in it which are not always to my taste. Expect to see more such. Presume others will see things in my articles which they will not like. But I like the ADVANCE because it steps out boldly and pushes on after the truth. This is the way to find it. I think the best recommendations you have published, are those which have condemned you so sharply. Their style, literary and otherwise, shows the need of such a periodical among us."

A WOMAN'S VIEW OF THE MEDICAL EDUCATION OF WOMEN.

A writer in the July number of the CINCINNATI MEDICAL AD-VANCE, discusses the question of woman's studying medicine. He gives his decision in the matter, prescribing the course he thinks best for her, and hopes that Pulte College will be the first to establish a separate department, "where these women will attend, who fully appreciate by virtue of their sex, the fact that nature has adapted them for that portion of the practice designated."

Now being a woman and a practitioner, we cannot help wanting to speak for ourselves in the matter. It is true, we are not asked to speak, but we have a very strong desire to do so, and to tell the plain truth, we believe that when woman's interests are at stake, woman's voice ought to be heard. The founders of Pulte College, undoubtedly have a right to establish whatever order of things they choose, but it is the principles advanced by the article in question with which we take issue.

We will commence with the third sentence. "So long as 'Miss' remains unmarried or 'Mrs' husband is unable to support her and the family, they will be sure of securing a practice." Are these the only conditions in which women physicians can secure a practice? Did we believe this to be true, we should regard it as our bounden duty to oppose with all our might, every woman who has the faintest aspirations of ever becoming a physician. We believe that no man nor woman is entitled to a practice, until by being properly

fitted for it, they have rightfully earned it. Further than this, we believe it much more difficult for a woman than for a man to obtain a practice on any other grounds.

The next sentence in the article reads like this. "And now since no one denies her right to become a doctor, the only question unsettled is, how she shall be educated, and what part of a physician's duties shall she assume." We think another question is to be considered. That is, who shall decide for her, woman herself, or the writer in the Advance? Let any woman mark out a course of study for him and attempt to bind him to it, and earth would be shaken to its center. Therefore we hope that out of gallantry at least, he will permit woman to decide for herself, how she shall be educated, and what part of a physician's duties she shall assume.

The writer admits that the large majority of female students desire to attend the medical colleges, where they can receive equal advantages with the male students, also, that they do attend these where they are allowed the opportunity, but thinks it is perhaps more from a determination to gain what they call their "rights." But does he know this to be the case? Now we rather think that "perhaps" the female students prefer those colleges because they receive the best advantages there.

He further states that the majority of male students are opposed to the admission of women to their colleges. If this is true, we regard it as simply an example of aristocracy of sex, similar to the former one of aristocracy of color. The majority of the white aristocrats of the south were never in favor of admitting their colored brethren to equal advantages. The statement that none are willing to admit their sister or intended is simply untrue.

He mentions different classes of persons who are in favor of admitting women to all medical advantages with men. We accept these, and wish to add another class. People with a strong faith in humanity and God, who believe that woman is a responsible being, who believe that justice should precede prejudice, and that to the pure in heart all things are pure, who believe that woman has a right to the advantage that will most aid her in fitting herself fully for whatever profession she may choose, and that man has no right to deny her these, are in favor of women attending medical colleges with men.

He also claims that the education of the sexes together has in many instances prevented a better class of women from studying the profession. Now we happen to be acquainted with many of the women who studied at the college referred to, and we can assure the readers of the ADVANCE that the profession has not suffered from this class of women. Would that all the men who are practicing medicine throughout the country, were as moral and upright in their calling. "If-only knew of the iniquity that arises in consequence of educating the sexes together." Perhaps there is no better source from which to obtain a knowledge of this matter than the report of the Committee on the Sage Endowment to Cornell University. This Committee visited or wrote to, nearly all of the principal Normal Schools, Colleges and Universities in the country, where male and female students receive instruction on equal terms. With but one exception, the testimony was in favor of co-education. The exception was simply an opinion of the Principal of a State Normal School, unsupported by either facts or arguments. In every other instance, better morals were reported than when the sexes were separated. We know of nothing more comprehensive than the above mentioned report, nor where greater pains have been taken to obtain all the facts in the case.

We quote again from the ADVANCE. "As a general practitioner woman rarely succeeds." This we deny. We are personally acquainted with a number of women, who are having a large and successful practice. Some of them are married, too, and have husbands who are able to support them, which fact does not seem to interfere, in the least, with their practice. Really we know of but one woman who has failed as a practitioner, and her failure was caused by ill-health.

The writer in question asks that the women of to-day profit by the experience of their older sisters in the profession. Would that we could have their testimony in letters of gold, for we are fully confident it would be unanimously in favor of co-education, as it is the only means by which woman can be sure of the highest advantages.

To the cry that better woman are needed in the profession, we reply, that there are no better women living than many of the women practitioners of the present day. Where can we find an assemblage of more earnest, cultivated and pure women, than the women in attendance at the late Homœopathic Institute at Cleveland? What we need most is a better class of male practitioners.

We do not wish to be understood as dictating to the directors of any medical college, but we do plead most earnestly that no doors be closed to women. If she desires to study diseases of women, let her do so. If she desires to make surgery a specialty, let her do so. If she chooses to fit herself for a general practitioner, by all means let her follow her own inclinations. Give her equal advantages of study with men, and then if she fails to succeed, let the responsibility rest upon her. She will have done no worse than some men have done before her.

If woman's medical studies are to be limited to diseases of women and children, if "nature has adapted her for that portion of the practice," it ought to be here exclusively, and colleges should make it so and not teach this division to men. But we well know that such an idea will not be entertained for a moment.

If our Creator considered it so terrible an evil for the sexes to associate, why did he place us on the same earth? We feel assured, that if the matter is fully understood by the students, that the Faculty will not countenance nor permit any indecent or impolite behavior; if the language at clinics and the lecture-room is tree from coarse jokes and vulgar expressions, if a high moral standard is cultivated everywhere, both in language and deportment, there will be few inducements to unworthy men or women. A man or a woman who has not the moral stamina to conduct himself or herself properly under the circumstances, is unfit to receive a diploma, though obtained at a separate course.

In the separate course of study marked out for women by the Professor, we understand that they are to be taught by men. Now really we fail to perceive the difference in the morality of reciting with men and reciting to men. If the faculty desire that nothing shall transpire, which is rude or out of place, the thing can be as easily effected in the mixed college as in the separate. If the professor wishes to indulge in a rude joke, he can do so, when his hearers are only women. The true gentleman will be a gentleman everywhere, the boor will be a boor whether he has M. D. annexed to his name or not.

In view of these things, we call upon all women, desiring to fit themselves for the practice of medicine, and "who fully appreciate by virtue of their sex" that they are capable of marking out their own course of study, to ever patronize those colleges which extend to them the highest, broadest and most liberal advantages.

A WOMAN PRACTITIONER.

"THE MEDICAL EDUCATION OF WOMEN."

"There is no need for the ladies to leave the room. If women are to study medicine let them learn the whole."

While I was a student in the college in which the writer of the article on "The Medical Education of Women," in the July Advance, was so long a teacher, I remember that he made use of the above words, at the commencement of a lecture upon the surgical treatment of certain of the special diseases of men. Some movement among the women of the class had given the professor the impression that they were about to retire from the lecture room, and he said in the energetic, decided manner, which all who have heard him lecture will remember. "There is no need for the ladies to leave the room. If women are to study medicine, let them learn the whole."

Allow me to express a few thoughts, called up by consideration of Prof. Beckwith's article.

His present position I understand to be this: It is better for those women who desire to practice medicine, to take only a partial course of study, to be thoroughly taught in Obstetrics, Gynæcology and diseases of children; and when these subjects are mastered, receive a special degree, giving the legal right to practice in these departments of medicine. Because, forsooth, women doctors will find their chief success,—if success they find at all,—in treating the diseases peculiar to women.

As well might it be argued, that he who would devote his attention to ophthalmology, should study only the eye, to otology the ear, to general surgery or any one of its branches, that only which pertains to the special field in which he expects to work, while remaining ignorant of all other medical matters.

Now while I expect that my professional work will lie mainly in the departments of obstetrics, gynæcology and infantile diseases, and think it in accordance with the "eternal fitness of things" that it should be so, I imagine myself the happy (?) possessor of one of these special (O. G. D.) degrees.

A patient whom perchance, under protection of my O. G. D. diploma, I have assisted through parturition, or have relieved of some form of uterine disease, is so unfortunate as to have pneumonia, or typhoid fever, or rheumatism, and naturally enough desires me to attend her. I, to guard against unpleasant complications (remembering my "special degree"), must modestly make my bow; say that the treatment of the case is outside my "sphere" and send her to the hostile M. D. across the way, who of course could not lose so good an opportunity for sneering at the "woman doctor."

It seems to me simply absurd for any woman possessed of common sense to place herself where such ridiculous situations would be unavoidable.

If women are to study medicine at all, is not the only reasonable course for them—that pursued by specialists generally—to obtain a fair respectable knowledge of general medical science, and give special study to the special departments in which they are to work?

Aside from surgery and the special diseases of men, there is little if anything in a course of lectures as given in medical colleges, that one who would be thorough in the departments of obstetrics, gynæcology and diseases of children, does not need to know. And I know not any objection to some knowledge of the principles of surgery, even if such knowledge should give a woman the ability to reduce a fracture, dress a wound, or, in short, perform any simple operations, should occasion require. If not strictly necessary, such knowledge does not seem objectionable.

Possibly, too, the medical colleges that have been long established, that have a reputation throughout the country, and that

possess a full and competent board of instructors, with good hospital and clinical advantages, may be selected by worthy women, in preference to the comparatively obscure schools, in which women only are taught medicine for some better purposes, than the mere "assertion of their rights," or "from a desire to attend where the sexes are educated together." It is surely no more than honorable to allow such a possibility.

Upon the question of the joint, or separate, medical education of the sexes, I have not at present much to say and will let this suffice. I can see no impropriety, however, in the joint education of the sexes, that does not to an equal degree at least, attach to the relations of the male physician, with his female patients. Certainly I have no objection to the separate instruction at different seasons of the year, granting only that the woman's course of study be comprehensive, instead of partial, and her degree that of the regular M. D.

Anna Sowles Hill.

Franklin Pa

HARRISBURG HOSPITAL.

So many contradictory rumors relative to this institution have been circulated in this city for the last few days, that justice to contributors, managers and late medical staff seems to require an explanation.

This institution has been founded upon the sole principles of Christian benevolence. Its corporate title defines its character, viz: "Harrisburg Hospital for the care of the sick and injured."

It was not intended to be a theater of medical or surgical practice, wherein the practitioners of any one school of medicine should operate to the exclusion of another school, nor to be ruled and governed in the control of any school, but solely by the Board of Managers, and in the interest of the suffering patients alone. Actuated by pure motives, the Board of Managers, at a meeting held on Monday last, immediately before the dedicatory services, and at which meeting eleven out of thirteen were present, thought proper to make provision for such patients as might,

on being brought into the hospital, desire homeopathic treatment. Common sense as well as true charity and a decent regard for the wishes of the sick, would dictate such a course. As it was supposed that the medical staff chosen had assumed the work assigned them with the same motive as the managers and contributors, viz: simple charity, independent and free, they did not look for the result that followe.

On Wednesday afternoon, while one of the attending managers was on duty at the hospital, he was officially waited upon by a committee of the staff, consisting of Drs. Witman, Hamilton and Orth, and on being asked by them whether the resolution adopted by the board would stand, he replied that as it had been adopted after full discussion by a vote of seven yeas to four nays, and only two members of the board absent, he had no doubt it would. The committee then handed the manager the following communication:

To the Board of Managers of the Harrisburg Hospital—Gentlemen: The undersigned respectfully represent that when we accepted the respective positions to which you elected us upon the staff of the hospital, we did so under the impression that the medical and surgical treatment of its patients would be intrusted entirely to our care; as they are to the staff of every regular hospital. You have seen fit, subsequent to our acceptance, to pass the following preamble and resolution:

"WHEREAS, It has been stated that if homœopathic medicines be procured, attendance will be furnished gratuitously by a homœopathic physician; therefore,

"Resolved, That a case of homoeopathic medicine be procured, at a cost not exceeding \$100, so that if any patients wish to be treated under that system, it may be done by a physician of that school."

Whilst we would cheerfully and gratuitously have served the interests of the institution to our best ability, as its sole staff, we can not consent to act in a hospital wherein it is proposed to sanction practice so utterly at variance with that in which we have been educated. We, therefore, hereby respectfully tender our resignations. H. O. Witman, M. D., Consulting Physician, Geo. Dock, M. D., Consulting Surgeon, G. R. Hursh, M. D., John W. Hay, M. D., Visiting Physicians, A. C. Renninger, M. D., H. L.

Orth, M. D., Visiting Surgeons, John C. Hutton, M. D., Hugh Hamilton, M. D., Dispensary Physicians. Harrisburg, August 6, 1873.

At this time there were three patients in the hospital, and the committee expressed their willingness to continue in charge until other physicians could be had, or until a meeting of the board. The attending manager stated that he had no authority to say whether they should or should not; that they should use their own option; but that if he had the authority he would dispense with their services at once and get other physicians.

Immediate information was given by the attending manager to A. Boyd Hamilton, Esq., secretary of the board, who, in the emergency, in consultation with J. W. Weir and R. F. Kelker, two of the managers, and by their advice and approbation, called a special meeting, directing a notice same evening by postal card to every member of the board then in the city. The meeting was held on Thursday at 10 A. M.

Present, seven managers, to-wit: Messrs. J. D. Cameron, H. McCormick, J. W. Weir, A. Boyd Hamilton, D. W. Gross, D. C. Kolp, R. F. Kelker.

The resignation of the medical staff was laid before the board—and accepted with but one dissenting voice.

The resignations of Doctors Curwen and Reily as members of the board were also laid before the meeting, but as there was no urgency in these cases, and as no cause was assigned by either of these gentlemen, it was resolved to lay their communications on the table until the monthly meeting.

J. D. Cameron and R. E. Kelker, visiting managers, were then authorized to employ immediately such number of physicians as they deemed sufficient, which they did at once.

Messrs. J. J. Applebaugh and J. L. McKeehan, both highly respected physicians, without any hesitation generously agreed to serve the institution gratuitously. The former has had a practice covering nearly thirty-five years, and stated that the services of any physician whom the board might see fit to send to the hospital would be perfectly agreeable to him, and that he would not regard it as interfering in the least; that every man had a right to be treated according to his own preferences. The latter named Sept-4

(Dr. McKeehan) is a young gentleman of more than ordinary ability, and both physicians are fully competent for the work. At 1:30 P. M. on Thursday they entered upon their duties.—Pittsburg paper.

EVOLUTION AND MIND.

Those who do not favor the general drift of modern thought in some of its tendencies, will find consolation in Dr. Radcliffe's article on the above topic, in the last *Popular Science Monthly*. We reproduce the concluding paragraphs. The protest is clear and candid, and to some it may be convincing.

"The nebular hypothesis, which may be taken as the real starting-point of the doctrine in question, is certainly very nebulous. The facts upon which it is founded show unity of plan; of that there need be no doubt; but this unity of plan is really a matter quite apart from the nebular hypothesis founded upon it. Besides, where did the heat come from, which kept up the nebulous state which preceded the formation of the heavenly bodies of various sorts, and what has become of it since the time of this formation? What real proof is there of the continual cooling which should still be going on according to this view? Like light and gravity, heat may result in the mutual reactions of the heavenly bodies, or be a property of one or other of these bodies; but to conceive of it as independent of these bodies is, to say the least, no easy matter. Indeed, so difficult is it to conceive of it, that, until the difficulty is overcome, the nebular hypothesis may be set aside as a dream which is as little calculated to give probability to the doctrine of evolution as the evidence which has been already glanced at.

And so likewise with that particular evidence in favor of evolution which the facts of geology are supposed to supply. Endless ages are needed to allow of evolution; and the facts of geology are believed to testify unequivocally to the lapse of these ages. But is it so? If the rock in which the skeleton of a plesiosaurus is embedded had been deposited as slowly as it is sup-

posed to have been deposited, every trace of organization must have decomposed and disappeared long ages before the animal could have been covered up in its bed. For the skeleton to be there at all, indeed, is a plain proof that the rock, at least to the thickness needed for embedding it, must have been deposited before decomposition had time to do its work fully. And so likewise in every other analogous case. Nay, it may even be questioned whether there has been a separate upheaval and sinking to allow of the formation of each coal-seam or limestone-bed, for many of these seams and beds which are parallel may have to be explained as drifts, which have to do with one cataclysm of upheavel and sinking rather than with many such cataclysms; for how could this strict parallelism be preserved if there had been many cataclysms? Moreover, it must not be forgotten that there are not a few fossils out of place in the strata, fossils which ought not to be where they are if living things had made their appearance on the earth in the order required by the doctrine of evolution.

In a word, I fail to find anywhere sufficient reason for believing that man began his history as a marine ascidian, or as a creature still lower down in the scale of being, and that he has worked his way to his present state of civilization by ceaseless strugglings upward—first, in countless forms of brute life, each one succeeding in the series being a little more advanced than that which went before it; and then through an interminable line of savage ancestry, of which the first in the series were only a shade more advanced than the tailless ape of which he was the immediate descendant, And glad I am that it is so; for this idea of imperfect being ever, and almost forever, straining after perfection, and constantly failing in the struggle, produces a feeling approaching to a painful shudder. At any rate, until these and other difficulties are swept away, I find it more easy to accept the doctrine of the creation than to accept the doctrine of evolution, and to believe that each creature was created perfect in itself, and in its relations to all other creatures, and to the universe of which it is a necessary part—so perfect as to deserve to be spoken of at the beginning as "very good"—and that man originally was no brute-descended savage, living in a wilderness, and

fighting his way step by step upward to a higher level, but a demi-god, walking and talking in a paradise with the God in whose image he was made, until, for some fault of his own, he was driven out into the wilderness, a slave to body, naked, and all but altogether oblivious of everything relating to his high original.

INTEMPERANCE AND LIFE INSURANCE.

Life Insurance has become so much a matter of course, and so many wives and families have learned to think that if the husband and father should be taken suddenly away, the amount of his life insurance will serve to keep the family together and a roof over their heads, that most people will be startled to learn that intemperance on the part of the insured may vitiate the insurance policy and leave his needy family destitute.

A case involving this question has recently been tried in one of the courts of Cincinnati. The administrator of one F. M. D., deceased, sued the Mutual Benefit Life Insurance Company to recover \$5,000 under his policy of insurance.

The company resisted the payment on the ground that D. had died in consequence of intemperate habits; and they set up the following declaration made by the deceased in applying for insurance: "I do not, nor will I practice any bad or vicious habit that tends to shorten life." This they contended was an untrue declaration. In regard to this clause, which was made a part of the policy, the Court charged the jury that it was a warranty, and unless it was literally true, and continued to be so, the plaintiff was not entitled to recover.

The terms of the warranty were that the applicant "did not and would not practice any bad or vicious habit that tended to the shortening of life. The jury would therefore consider whether or not, at the time of the application, or afterward, the deceased indulged to an extent amounting to a habit in the use of intoxicating liquors, and, if so, whether this was a bad or vicious habit which tended to the shortening of life." In defining the meaning

of the word habit, the Court instructed the jury that the frequent drinking of spirits leads to habits of intemperance, and that if they found from the evidence that the deceased, at the time the application was made, or subsequently, had an appetite for intoxicating drinks to such an extent that a single indulgence necessarily incited him to a repetition of it, and led him into sprees, and these sprees were frequent and rendered him incapable of controlling his appetite while they continued, then, although there were intervals in which he remained entirely sober, there was such a repetition of acts of drinking as amounted to a habit, and if this was a bad vicious habit which tended to the shortening of life, the defendant would be entitled to a verdict. Other points relating to the habits of the deceased were reviewed by the Court, the principle being maintained, that if the person insured had misrepresented his mode of life, or had indulged in intemperate habits, his policy was The jury gave a verdict for the insurance company.

This decision, with several others recently made, goes to show that a policy of insurance, as these policies are commonly worded, on the life of a man who drinks to intoxication is worthless.

We see no injustice in this. If ten men out of a hundred who are insured shorten their lives ten or fifteen years by means of in-· temperance, those who do not thus shorten lives, have to pay more for their insurance, than would be necessary if the others lived and continued to pay. Insurance must pay its way, and if some by wrong living die early, the long livers have to make up the deficiency. Every man who becomes intemperate should be stricken from the rolls of the insured, or belong to a separate company or class, and be required to pay a premium commensurate with the extra risk. There is no fair method of life insurance except by classifying those who are insured, so that those who have excellent constitutions and good habits, shall have the benefit of a moderate annual payment. Brick houses pay but half the rate of fire insurance which is charged for frame houses. Why not apply an equally sensible rule to life insurance?—Phrenological Journal.

DOCTORS VERSUS PHYSICIANS.

True goodness, another name for the highest human knowledge, is the best guide a physician can have, to aid him in preventing or curing disease. By our good example we teach more successfully than by words.

The doctor who is not capable of preventing or curing disease in his own person, or family, has not the practical knowledge or goodness to prevent or cure it in others. His self-education needs further completion, before he deceives the ignorant, by putting up a glittering sign on his door, inviting his fellow-man to obtain of him for pay, what he has not procured for himself. We may as well ask the beggar for a loan of ten thousand dollars, as to ask such a doctor to cure, or instruct us how to prevent disease. Can a man give to another what he has not himself first received?

What must any intelligent person think, when he calls on such a doctor, and, as he enters his office, finds it filled with tobacco smoke, the windows closed and nailed down, and on a still nearer approach to him, the fumes of an alcoholic breath offend? At once the conclusion is, we cannot find health here, for this quack wants our money to purchase more tobacco and whisky.

There are in this christian land, many doctors professing religion, who daily use tea, coffee, beer and medicated food, to such an extent, that they are as useless as the quack above described, and dare not correct their patients of like disease producing habits. What chance of cure has a patient, while under the care of such a doctor, whose dyspeptic and sallow face shows he lacks medical knowledge sufficient for his own personal cure. Can such doctors sustain their bad habits by saying that physiology taught them that tobacco, beer, whisky, tea, coffee and table poisons, are very important and necessary for the health of man? Do these articles contain all the atoms and elements in the proper form and condition, to make human blood? Were there no ealthy people before such stimulants and poisons came into daily use? How long could a man live on these poisons alone, without bread, fruits, vegetables and other natural food? The true physician does not try to put poisons in place of food or drink,

u s produce disease.

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If a physician makes it his duty to instruct his patients how to learn and obey, (instead of pray,) the laws of nature, physiology, hygiene, and sanitary science, and shows by his own example he has this knowledge, no person can call him a quack doctor, and tell the truth. Depending upon drugs only in any form or quantity, without giving advice fully up to the present state of human sanitary science, is playing the quack doctor's game.

Investigate and obey the laws of our being. Live truly, and life shall bring forth *good*, the only God we now have any knowledge of, to guide us in our various duties as a true physician.

Binghampton, New York.

T. L. Brown.

DIVISIBILITY OF MATTER.

Let us dissolve a gramme of resin in a hundred times its weight of alcohol, then pour the clear solution into a large flask full of pure water, and shake it briskly. The resin is precipitated in the form of an impalpable and invisible powder, which does not perceptibly cloud the fluid. If, now, we place a black surface behind the flask, and let the light strike it either from above or in front, the liquid appears sky-blue. Yet, if this mixture of water and alcohol filled with resinous dust is examined with the strongest microscope, nothing is seen. The size of the grains of this dust is much less than the ten-thousandth part of $\frac{1}{28}$ of an inch. Moren makes another experiment, proving in a still more surprising way the extreme divisibility of matter: Sulphur and oxvgen form a close combination, called by chemists sulphuric-acid gas. It is that colorless and suffocating vapor thrown off when a sulphur-match is burned. Moren confines a certain quantity of this gas in a receiver, places the whole in a dark medium, and sends a bright ray of light through it. At first nothing is visible. But very soon in the path of the luminous ray we perceive a delicate blue color. It is because the gas is decomposed by the luminous waves, and the invisible particles of sulphur set free decompose the light in turn. The blue of the vapor deepens, then it turns whitish, and at last a white cloud is produced. The particles composing this cloud are still each by itself invisible, even under strong microscopes, and yet they are infinitely more coarse than the primitive atoms that occasioned the sky-blue tint at first seen in the receiver. In this experiment we pass in steady progress from the free atom of sulphur parted from the oxygen-atom by the ether-waves to a mass apparent to the senses; but, if this mass is made up of free molecules which defy the strongest magnifiers, what must be the particles which have produced those very molecules!—F. Papillon, in Popular Science Monthly.

MONTHLY REPORT OF THE CINCINNATI HOMŒ-OPATHIC FREE DISPENSARY.

FOR JULY, 1873.

DISEASE:—Asthma 1, Acne 1, Ague 3, Constipation 5, Cholera Morbus S, Cough 4, Catarrh 3, Colic 1, Dysmenorrhœa 2, Dyspepsia 6, Dropsy 4, Debility 4, Dysentery 7, Diarrhœa 23, Epileptiform Fits 1, Gonorrhœa 4, Gastritis 1. Gravel 1, Glossitis 2, Heart 5, Hysteria 1, Hematemesis 1, Hernia, 1, Hemorrhoids 1, Jaundice 1, Pleurisy 4. Phthisis Pulm. 2, Pertussis 3, Pneumonia 1, Pruritis 1, Paralysis 2, Parotitis 1, Rheumatism 7, Syphilis 4, Sprain 2, Sick Headache 2, Sore Throat 5, Stomacace 2, Scrofula 6, Teething 2, Uterine 22, Miscellaneous 29.

Whole no. Patients 188. Whole no. Prescriptions 501. Whole no. Visits 56.

NATIVITY:-Amer. 151, Ger. 8, Irish 29.

Sex:-Male 63, Female 125.

Color:-White 175, Black 13.

Adults 144, Children 44.

O. W. Lounsbury, M. D., Resident Physician.

OPHTHALMIC AND AURAL DEPARTMENT.

No. of Cases treated: Keratitis 6; Cataract 3; Asthenopia 3; Otitis Medea 2; Otorrhea 2; Otitis Externa 1; Conjunctivitis 4; Chronic Aural Catarrh 5; Iritis 2; Miscellaneous 7.

Whole No. 35,

T. P. WILSON, M. D. Surgeon in Charge

TALKING WITHOUT A TONGUE.

A remarkable example of the retention of the powers of utterance, after loss of the tongue, is that of Margaret Cutting, whose case was brought before the Royal Society of England in 1742, and again in 1747. This girl lost her tongue by what was supposed to be a cancer, when four years old. The disease first appeared in the shape of a small black speck on the upper surface of the tongue, and rapidly eat its way quite back to the root. One day, while the surgeon who had the case in charge was syringing the parts, the tongue dropped out, the girl immediately thereafter, to the great astonishment of those present, saving to her mother: "Don't be frightened, mamma; it will grow again." Three months afterwards it was completely healed, with not a vestige of the tongue remaining. At the age of twenty this girl was carefully examined by several competent gentlemen, who report in the 44th volume of the "Philosophical Transactions" as follows, regarding her condition: "We proceeded to examine her mouth with the greatest exactness we could, but found not the least appearance of any remaining part of the tongue, nor was there any uvula. * * * Notwithstanding the want of so necessary an organ as the tongue was supposed to be, to form a great part of our speech and likewise to be assisting in deglutition, to our great admiration she performed the office of deglutition, both in swallowing solids and fluids, as well as we could, and in the same manner. And as to speech, she discoursed as fluently and as we'l as others do. * * * She read to us in a book very distinctly and plain, only we observed that sometimus she pronounced words ending in ath as et. end as emb. ad as eib; but it required a nice and strict attention to observe even this difference of sound. She sings very prettily, and pronounces her words in singing as is common."—Popular Science Monthly.

WITH OR WITHOUT the advice of a physician, never give an infant any spirits, cordials, carminatives, soothing-syrups or sleeping-drops. Thousands of children die every year from the use of these poisons.

PULTE MEDICAL COLLEGE.

This institution begins its next session, Sept. 26th. Introductory address on the previous evening by Prof. Wilson. Everything is being put in order for the reception of the class. So far indications point to a large attendance the coming session. The members of the Faculty are making ample preparation for a successful winter's campaign. Students who mean to do hard studying, and are seeking for high scholarly excellence will be welcome. In both clinical and didactic instruction, this school will not be surpassed this coming course of lectures. Students coming to Cincinnati, will be made to feel that they are at home and among friends.

JUST THE DIFFERENCE between the ADVANCE and several of our contemporaries is this: In reporting the proceedings of the American Institute, the other journals generally cut down the discussions, and inserted page after page of names of committees and names of new members. This of course was an easier task than to go carefully over the discussions and glean out the valuable parts of it.

On the contrary we cut out all such material as names of bureaus, mere business reports of committees, as useless in a medical journal, and instead served up the cream of all that could be found that was practical. Will our readers compare our report with the reports of other journals and note the difference, and will they appreciate the care we are taking to improve this department of medical journalism?

THE POPULAR SCIENCE MONTHLY for September is replete with valuable articles. We have made an extract from Papillon's article on the Constitution of Matter, which will doubtless arrest the attention of our readers. The facts presented have an important bearing on the question of attenuation of medicines. Thus it is that all our modern investigations give support to the therapeutic principles and practices we support. If we cannot stand the test of science let us be overthrown.

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VOLUME I.1

CINCINNATI, O.—OCTOBER, 1873.

[NO. 8.

Subscriptions to the Advance should be sent to Dr. T. C. Bradford, P. O. Drawer 1284, Cincinnati, Ohio.——§3.00 a year, in advance.

All communications for publication should be addressed to the General Editor, "T. P. WILSON, M. D., Corner 7th and Mound Sts., Cincinnati, Ohio,

All business communications, relating to the publication or to advertising, should be addressed to Dr. E. W. Fish, S. W. Cor. Seventh and Mound Sts., Cincinnati, Ohio.

Choleraic literature has fairly glutted the market. Every third doctor has assued a pamphlet upon the subject, and every pharmacy has sent out a treatise on the subject. But the cholera has incontinently disappeared. Some attribute this to improved sanitary regulation, but we think the excess of literature proved the main barrier to its progress. We, at least, have been alarmed at the amount of lectures, circulars, pamphlets, newspaper articles we have seen upon the subject. Our exchanges have abounded in articles treating of the disease, and there has been the usual diversity of opinion among doctors as to its nature and treatment. In the allopathic and eclectic schools this want of harmony has been painfully apparent. Without a guide in therapeutics, it must always be so with them. A candid mind, in looking over the field, would say they were badly demoralized.

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Of course they think, and rather pride themselves upon the fact, as it shows that there is no therapeutic law.

It is a fact, however, that the homœopathic doctors have shown great unanimity in their mode of treatment. This harmony of action has awakened a strong feeling of confidence in the minds of the public. In medicine as in war, unity of action will win.

Drs. Dake, of Nashville, Youlin, of Jersey City, and Hooper, of Bay City, have sent us valuable articles which we have placed on file for future use. We are in hopes there will be no present need of using this material. The cholera has been only sporadic in this city, and at present it has wholly disappeared.

DR. T. D. WASHBURN (Buffalo M. and S. Journal) puts in a strong plea for popularizing medical science. He is especially stirred up by the publications of the Humphrey Homeopathic Medicine Co. He exclaims, "Thus does the ignis fatuus of infinitesimals cajole the public, and with a few grains of general truth, attempt to conceal the fatal book of nihilism." This is too bad; but a man possessed of the idea that Humphrey's sugar pills possess anything "fatal" can't easily be consoled. He further says, "We (the allopathic doctors) have the ability, if we had the will, and every community has enough facts and figures, if properly arranged and presented, to make their ears tingle and face crimson." We happen to know a good many facts in several communities that have made ears silent and faces white in death, and these facts laid before the public might not suit the doctor nor However, that is the true crucible in which to try the claims of the various schools. Let the intelligent public decide.

THREE NEW MEDICAL JOURNALS have recently made their appearance. The Medical Review, of Indianapolis, The American Medical Journal, of St. Louis, and The Medical Brief (an odd name, if not in fact a misnomer), of Wilson, N. C. The first two are eclectic, and this shows that eclecticism is certainly advancing. The latter is allopathic and is full of that energy which in any school is sure to win.

DR. G. C. PITZER (Am. Med. Jour.) discourses upon the treatment of dysentery. His strong point is hypodermic injections of morph. sulph. He says, "We never give opium or morphia by the mouth in dysenteria," and truthfully adds: "Patients frequently recover after such treatment, but it is bad practice, it constipates the upper bowels, disturbs the stomach, and interferes with the digestion; frequently results in great harm and if persevered in nearly always kills children." These facts we regret to say do not always prevent homeopathic doctors from dabbling with the pernicious agent. Dr. Pitzer insists upon frequent hypodermic injection of the morphia, recommends soda bicarb. in teaspoonful doses every four or six hours giving "at the same time & tinct. lobelia seed gtts. xxx.; fluid extract ipecac, gtts. xx.; fluid extract asclepias, \$\frac{3}{5}\$ss.; water \$\frac{3}{11}\$jss: one teaspoonful every twenty minutes."

Then he upsets the whole affair by offering the following sensible advice.

"The people, and especially doctors, are frequently in too great haste to bring about desired results in all cases of a painful character, and are apt to overdo the thing. It is in such cases as these that opium and morphia, and many other potent drugs find most of their victims. Cathartics, too, are sometimes resorted to in dysentery very unnecessarily. We should have patience and give nature a chance; should exercise our judgment instead of catering to the whims and wishes of friends, never giving any medicine for temporary relief that we know must surely injure our patient in the end. Better trust to nature, far better."

We advise his readers to begin at the latter end of his advice and then they will not need to trouble their patients with the other and objectionable facts so pointedly condemned by the writer himself.

It is intolerable, this bragging of the doctors. They will get you by the button-hole and bore you a whole hour, detailing the brilliant cures they have made. They tell you such marvelous things—how the blind were made to see, the lame to walk, the deaf to hear, and you need not be surprised if they declare they have raised the dead.

To a sensible mind, this is very far from agreeable. By such

talk, such doctors may sometimes delude their patients, but to every one well informed, it is transparently sheer egotism. If a doctor has wrought a wonderful cure, let him write it out and have it published; and let it be so worded as to show the worth of his profession, and exhibit less his own personal virtues. When doctors meet, let them discuss medical questions, and not spend their time in alternate self-admiration by first one and then the other, telling what great things they have done. We will be glad to read of your deeds, but please don't waste our precious time with your viva voce stories.

SCIENTIFIC HOMŒOPATHY. *

We come now to speak of the remaining propositions advanced by the Paris surgeon and combatted by the writer in the Druggist's Circular. We cheerfully admit that the first proposition represents truthfully the belief of all those who claim to be homoeopaths. The attempt of the writer to overthrow the doctrine, fails through misdirection. If he were to meet the question fairly, he might possibly do better. Still he seems as well satisfied with his effort, as though he had accomplished all he had undertaken, and boldly pushes on to answer the remaining statements. We shall follow him. These, you remember, are the points laid down:

- 2. All diseases consist in a "dynamic aberration of our spiritual life," of "an immaterial change in our inner being," together with certain symptoms by which this "dynamic aberration" is made manifest.
- 3. Medical substances act upon the immaterial principles of disease by a certain force—a dynamic principle they contain; and this force may be separated from the material part of the medicament, and rendered the more active according to the amount of dilution, of succussion and of trituration which it undergoes.

And these, says the writer, "are the principles laid down by

* See September No. Advance, p. 391.

Hahnemann," and upon them, "the Homeopathy of to-day is founded." That these were laid down by Hahnemann is true, but that they form the basis of the homeopathic school is not true, and this fact we are quite as likely to know as the writer. To discuss them as representative ideas of the homeopathic school, is simply a waste of time.

There is but one central question upon which homœopaths agree, and that is embraced in the first proposition which we had under consideration last month, and is tersely expressed in Similia Similibus Curantur. But homœopaths are divided upon the subject of the universal application of the law—some holding that there are some exceptions to it in the treatment of disease, and others asserting that no disease can be otherwise cured than by this law.

Much more are they divided as to how diseases are cured by medicinal agents. That diseases are "dynamic aberrations of our spiritual life," is simply an opinion held by a respectable minority in the homœopathic school. It may or may not be true, but the argument used by the writer to disprove it, shows only that he does not grasp the idea clearly enough to discuss it understandingly. "If," he exclaims, "a knife enters the vital parts of the body, letting out the life-blood, * * * if a quantity of caustic poison is taken into the stomach, decomposing the tissues with which it comes in contact, * * * if a parasite developes in the brain, and by its pressure on surrounding parts causes paralysis, * * * * are we to consider all these as being but immaterial changes or dynamic aberations?"

Why did he not carry out a few more familiar illustrations; for instance, a man choked to death on a piece of tough beef, a woman burned to death by coal oil, or a boy blown up by gunpowder? They are all to the point, but not the point under discussion.

It is true that Hahnemann was a theorist, as are all great thinkers; and besides the law of cure which he enunciated, he developed a great many theories, some of which have been accepted, an some rejected, by his followers. In his investigations, he came to the philosophical and logical conclusion that, ab initio, all diseases were immaterial. The majority of medical men of all schools have come to accept this as true. It is not now a theory

peculiar to homeopathy, nor is it accepted by all homeopaths as true. It is not necessary, therefore, to discuss the truth or falsity of this theory.

Regarding the third point, the gist of which is, that the "medicament" is rendered more active in proportion to the amount of dilution, of succussion and of trituration which it undergoes, it might be sufficient to say that there are many homœopaths who do not believe it, and there are many allopaths and eclectics who do. It is not, and never has been, a "fundamental principle" of the homœopathic school. A large majority of its practitioners accept it as true, but it has never been made a test of fellowship.

But overlooking the mistake of the writer in assuming this doctrine to be a necessary part of Homeopathy, we can have no objection in following him in his attempted denial of it. And first of all, he reproduces that standard but thread-bare argument, that might be summed up in these words: attenuations of remedies have no medical value when made, but it is a physical impossibility to make them, especially the middle and higher attenuations. For look you, "The first dilution will require one hundred grains of sugar of milk: the second, ten thousand grains, or about eighteen ounces; the third, one hundred and twelve pounds; the fifth, one million, one hundred and twenty thousand pounds; the sixth, one hundred and twenty millions of pounds; the seventh, eleven thousand, two hundred million pounds. Continue the successive multiplications, and you will see that in the twentieth dilution, a grain of medicine will be divided in the weight of a world of sugar of milk. The twentythird corresponds to a grain triturated with the weight of one million terrestrial globes; the twenty-sixth would multiply the last quantity by one million; and, great heavens! to what will you arrive at the thirtieth, which is sometimes prescribed?" Another calculation, made by Dr. Pavini, of Naples, shows that "the thirtieth dilution of a single drop of medicinal substance would require as much alcohol as could be contained in our world. all our planetary system, and perhaps all the stars of the first and second magnitude, that one can discover in a beautiful night in summer; while for the fortieth, it would be necessary to add to this all the constellations one can discover from one pole to the other."

"Overwhelmed by the vastness of this view, the writer adds: These figures, owing to the immensity of the subject, are of course approximations." Whether they fall short of, or go beyond, he is probably not competent to say. A few billions more or less seems to be a matter of no consequence. "But," he adds, "they are sufficiently exact to show the terrible extent to which we may be led, when following nothing but our imagination." Whereupon we breath easier. We thought these terrible figures showed the folly of homeopathy; but, after all, they only show the folly of following our imaginations.

But foolish as it is, we are daily giving, not only the thirtieth, but the two hundredth attenuation of many remedies—substances that in their preparation might exhaust the whole universe of fact and fancy, and yet they act most miraculously in curing diseases. Facts of this sort, well-authenticated, already fill volumes; they can be furnished in unlimited quantities; and now the question is, are they made void through the "following nothing but our imaginations," or in other words, does this "terrible extent" of figuring up ideal quantities prove that attenuations have no curative power?

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But since no one ever seriously proposed to prepare attenuations after this manner, why do allopathic writers insist upon it as even hypothetical? Does it please their distorted fancies, or does it seem to affright their credulous followers? If it is designed to show the extent, rather than the manner, to which our attenuations are carried, very well. Allowing it to be an approximation merely, we need have no dispute about it. We show you just how we prepare our medicines—the thirtieth and two hundredth, yea, even the one thousandth. We give them to the sick, and the sick recover. Now can you figure out that we are mistaken? Is it a mathematical, or a physical, or a therapeutical impossibility, that these preparations should cure the sick? The best test is to faithfully try them, but that is just what our allopathic friends will not do. It would destroy their favorite pastime in decrying homeopathy; it would wound their pride of opinion; it would convert them to the thing they intensely hate. They dare not make the trial and publish the results.

Cincinnati Medical Advance.

MEDICAL TRAINING—WANTS OF THE DAY AND THE HOUR.

It has doubtless been observed by our thinking men that great and peculiar opposition is now in the process of inauguration against Homeopathy and all things connected with it. The effort of old medical influences and powers to crush us out of existence, is both increased and changed in its nature. There is no longer any serious attempt in the way of argument, and even the old weapons of jeering and ridicule are mostly laid aside. The enemy now relies upon the simple weight of numbers, for the purpose of bringing social, civil and political influence and authority to bear, assuming to be in possession of all that is known on the subject of true medical science. The antiquated doctors claim to be no "pathists" at all, but simply medical men, who understand, teach and practice all that is worth attention in the art of healing; or, if anything more is to be known hereafter, they are to discover it. They state this unblushingly. See their reports to Boards of Health, Regents of Universities, and so on. See also the combined movements of all their state and county medical societies, in which there is a great effort to ignore the medical pretensions of all others, especially of the homeopaths. and in which there is such determined bitterness, that members who presume to counsel or consult with their dreaded competitors, or even with those who do thus venture, must be expelled.

Now, there is a great work to be done in medical science. The causes and relations of disease, which are almost wholly unknown as yet, are to be explored. The materia medica of the world, which is deplorably vague, confused and undeveloped, must be reduced to order, and extended as far as human knowledge can go. The specific relations between remedial agents and disease are to be more and more fully ascertained—a work which is now harely commenced. The sanitary connections between mental operations and physical disorders are to be investigated more profoundly than ever before.

These and other similar great works, on which the welfare of mankind greatly depends, cannot be done by the self-styled regular profession, because they are filled as above noticed with their

own wisdom and importance. New truth, or new forms of truth, cannot enter such minds. They are closed to all radical and essential improvement. No man can receive a new thing while he is in a state of satisfaction with the old. Whoever would advance must leave something behind. The great work, therefore, the necessity which we have referred to, devolves upon the ostracised homœopaths, or those who break away from the bonds of intolerant self-importance, and the assumption of all-sufficient wisdom. Nor will true advancement in scientific truth attend those homœopaths, who think the new system is anything more than a good beginning—a lusty infant which may grow into the Coming Man, or be starved or choked on insufficient or deleterious food.

And now the important question is, how shall the great work be done? How, in the first place, can we best overcome the opposing power and influence of that hoary old profession, which assumes to be the only depository of medical science on the face of the earth, and which is closed to all radical change and consequent improvement? And next, how shall we obtain the requisite mental force and acumen, to explore the deep nature and relations of disease, of drugs, of all material sanitary influences, as well as effects of mind upon the body?

Our practitioners must put themselves, and must be put, into a course of special training for the business on hand. Their faculties ought to be opened, developed, enlarged, and filled with simple truth, every thing being rejected which cannot bear the rigid scrutiny of science and sound reason. We must learn to rely upon nothing which is not axiomatic, or established by clear and well-defined evidence. We must learn to look carefully and honestly at all the facts within our reach, to admit nothing but facts into our calculations, and to think directly to the point. And then we should learn to labor and wait patiently for results. Such is evidently the spirit and the endeavor that should prevail among us.

Then we should have concert of action. While we learn everywhere, we should teach and be taught in medical schools, assemblies and associations. The nature of mind appears to require something of this kind, for the prosecution of great works among the people.

But are the medical colleges we now have suitable and sufficient agencies to lead in the associated learning and labor demanded? Let us see. We have in the West, for instance, about half a dozen colleges, with some sixty or seventy professors, and perhaps three or four hundred students. It can be seen at a glance that these professors must work for almost nothing, in a pecuniary way, if indeed they do not suffer loss. They must therefore live by their practice, and hence cannot give their whole strength or best efforts to the work. They can devote to it but a comparatively small share of their time and attention. A few wealthy men might do more, but this is the ordinary state of things among us. How can the great need of the times be met in this way?

Still further, and worse: Many of these men, although circumscribed in time and opportunity and means for preparation, are obliged to deliver fifty, sixty, or more lectures in succession, and perhaps on a variety of subjects in different departments of medical science. No man can do justice in this way, either to himself or the subject he would unfold. For two special reasons:

In the first place, a lecture, worthy to be delivered as an element which is to pass into the formation of such medical minds as are now called for, cannot be arranged and composed without the careful investigation and labor of weeks, if not of months. The best minds in America, who make a business of inculcating their special views upon the platform, do not venture out with a lecture which has not cost them many days of hard labor. They study, think, compare and arrange their ideas, and then arrange and prepare their sentences, investigating the sense and bearing of each word, and often re-arrange and re-write, until they produce a compact, simple and beautiful whole. And the most gifted of these gifted men bring forth but few. Which of the most successful, if applied to by a lecture association, is able to offer the applicant a choice among more than half a dozen? Is the true advancement of medical science less deserving of the best efforts that can be made?

Second: Not only is it true that the best things a man is able to produce can and should be comprehended in a few discourses,

but it is also true that strong men are usually strong in some particular direction, and comparatively weak in some others. Genius is not ordinarily universal. It has favorite channels to run in. The great general is not usually a great statesman; the politician is not the eminent mental philosopher; the sublime poet is not the profound mathematician; the master of painting or sculpture is not a leading genius in the art of healing; nor in the healing art, is the same man equally fit to practice, and much less to teach, in the different departments of our extended science. No man indeed can do his best in that which he does not make a specialty. No medical teacher therefore, even among our strong men, should be assigned to the chair of any department, without special reference to his peculiar adaptability. A man indeed may be justly eminent as a physician, and not be suitable to lecture and teach at all, for he may know almost everything and not be able to clearly impart anything. He might therefore be taken away from work he is doing eminently well, and made to fail where one who is in many respects his inferior would succeed to admiration.

It will doubtless be admitted that we have so far advanced plain principles and facts. I think it must also be admitted that our medical colleges, as now constituted, do not answer the demand. Their plan may be as good as that of the old school, or better, but this does not bring them up to the requisite standard. What can be done? What should be done? for evidently that which ought to be done can be done somehow.

A plan has been suggested by one of our leading professors, which appears to call for at least careful consideration. It is in substance the following: Let our Western medical colleges, or at least, enough of them to answer the purpose, be united. Let them come together, at some desirable point to be agreed upon, with all their funds or endowments, all their apparatus, all their influence, or "good will," and all their professors, or as many of them as wish to come and try their hand. Let each professor take the chair, or division of a chair, to which he and his friends think him best adapted, and then let him put all his energy, knowledge and skill into the preparation of a few lectures, not more than fifteen or twenty, and for these let him receive as

much pay as he now receives for a hundred. And let him understand that he is expected to devote more labor to the preparation of these few, and to the preparation of himself for their delivery, than he has ever devoted to all he has hitherto given. Let each of our present professors be put upon his trial, until the result shall determine whether he is competent to remain, or whether he wishes to retain his place. When vacancies occur, let them be filled by those who have shown the qualities of mind and character which the situation calls for; and let them perhaps, go on a sort of probation at that. And then, if young men or old men aspire to these places, let them devote such talents, and show such knowledge, as will make them necessary, and cause them to be sought for, on account of the good they can do. This will be a noble ambition.

Two results would probably follow an arrangement of this kind: First the professors would learn more than they ever knew before, in relation to the several departments, or branches of departments, to which they would be brought to bring special, laborious and continued attention, more indeed than is to be found in the best authors, because additional truth must dawn upon those who thus labor for it in special directions. And then the aggregate of such acquirements would be a constant and cumulative fund of knowledge, from which there might be continued advancement to things yet unknown. And in the second place. the pupils of such a medical faculty would receive the concentrated and purified essence of previous medical science, together with fresh installments of wisdom; and more important still, they would be innoculated with the radical idea of onward movement.

Such a grand institution once formed and established, would almost of necessity be permanent and above the reach of injury from local competition, because it would have such an extended scientific apparatus, such a collection of specimens of all kinds, and such an aggregation of all useful paraphernalia, in addition to the greatly superior lectures to which we have referred, that students would be drawn there by an interest more powerful than the force which turns the needle to the pole. The means of endowment would also accumulate, upon the ground that

wealthy men, who at the same time have rich hearts, are more likely to bestow abundant gifts upon institutions which are not only good, but which stand likewise on so strong a foundation that no danger of failure is apprehended, whereby their munificence might be lost. To this add the fact that wise men are likely to promote the best institutions: all of which accords with the the divinely announced principle, "To him that hath shall be given."

Still, whenever the demand arising from modified views, or extent of country, or increase of true medical science among the people, shall call for another first-class institution, or more than one, let them spring up. No one desires to hinder that. It is merely proposed that we have such a union of our forces that the present needs may be well met, which clearly is not the case now.

The only objection of any weight, that I have heard, comes from one whom I regard more highly as a thinker, than almost any man in our ranks. He says, "Nature's law is diversity, not unity. From the homogeneous to the heterogeneous is the rule. Unity of aim, harmony of action is desirable, not unity of form." Now, if nature's law is diversity instead of unity, may it not also be diversity in union? And if unity of aim and harmony of action are desirable without unity of form, may it not still be desirable that the unity of aim and concord of action should be associated, for the purpose of greater efficiency? Is there not also such a thing as diversity in unity? Does not nature constantly group and unite her forces? No doubt the time is past. in which forcible unions can be tolerated, in which things can be enacted into anything but voluntary forms, or in which associations are to stand upon aught save true merit and the wants of community. But are not unions still important and even neces-Why else are the common schools of towns and large It is on a similar principle that we would unite cities united? our medical colleges. LEWIS BARNES.

ANÆSTHESIA-WHO WERE THE DISCOVERERS?

The long controversy had over the question as to whom belongs the question of first using anæsthesia, seems to have been brought to a close by a recent lecture by Dr. J. Marion Sims. The August number of the *Phrenological Journal* contains a full report of the lecture, and will be found of especial interest. We can make use of only the closing part of the article:

"This brief history of anæsthesia embraces four epochs:

1st. The discovery of anæsthesia by nitrous oxide gas, by Horace Wells, in 1844.

2d. The introduction of sulphuric ether as an anæsthetic, by Drs Morton and Jackson, in 1846.

3d. The discovery of the anæsthetic properties of chloroform, by Sir James Y. Simpson, in 1847.

4th. The revival of the use of nitrous oxide gas, by Colton, Dunham and Smith,in 1863.

Sir Humphrey Davy first suggested the idea of anæsthesia, and was on the verge of its discovery seventy years ago. We know that he inhaled the nitrous oxide gas for the relief of pain attendant upon cutting a wisdom tooth; that he was relieved of pain while under the influence of the gas, and that he suggested that the gas might be used to relieve the pain of "slight surgical operations where there was no great effusion of blood." If Sir Humphrey had been a surgeon, he would, in all probability. have put this idea to the test of experiment. But the great principle announced by him was allowed to lie dormant for nearly half a century, notwithstanding thousands were constantly inhaling the gas for amusement, among whom was the Rev. H. W. Beecher, who "sprained his knuckles and barked his shins, without feeling pain, while under the influence of the gas, when in college," as he informs me, or till Wells, at an auspicious moment, seized the idea, and at once put it into practical execution. The very day before Colton gave the gas at Hartford, he had given it to some young men in New Haven, when one of them rushed upon one of his comrades, and struck him forcibly on the head with his closed fist. After he recovered his consciousness, he complained of his hand, and on examination, it was found that the metacarpal bone of the middle finger was fractured, and yet this did not suggest to the mind of Colton the idea of using the gas as an anæsthetic in surgical operations. Sulphuric ether has a similar record. In 1796, the inhalation of the vapor of sulphuric ether was proposed in England by Drs. Beddoes, Pearson and Thornton, as a remedy in certain diseases of the lungs. In 1805, Dr. Warren, of Boston, employed it to relieve the sufferings of the last stage of consumption. In 1812, it was used in Philadelphia to produce its peculiar intoxication, and was supposed to be very analogous to the nitrous oxide gas in its effects.

To that great scientist, Richardson, we are indebted for the bichloride of mythelene. To Sir James Y. Simpson, we owe chloroform. To John C. Warren, chloric ether. And to Morton and Jackson we can fully accord all honor for the use of sulphuric ether; while we claim for Wells the highest place of honor, as being the first to demonstrate the fact that anæsthesia was practicable, and to be accomplished by the absorption of gases and vapors into the blood through the lungs. This great principle established, the only credit due to any one else is for the introduction of new agents capable of producing the same results.

Twenty years ago I believed that all the honor for anæsthesia was due to Morton. Now, with all the facts before me, I give Morton and Jackson all credit for the use of ether as an anæsthetic, none for the discovery of anæsthesia. Twenty-five years ago, Sir James Y. Simpson wrote to Dr. Morton, saying, "The great thought is that of producing insensibility; and for that the world is, I think, indebted to you." But as time rolled on, and more facts were brought to his notice, his judgment was reversed; and in the last literary effort of his life, in a letter dictated on his dying bed, April 28th, 1870, to Dr. Jacob Bigelow, of Boston, in a controversy between them on the subject anæsthesia, he says, "The idea of relieving patients from the pains of surgery by some such means, or rather, the restoration of that idea in recent times (for it was an old one), belonged justly to Horace Wells."

To my mind it is as clear that Wells was the discoverer of aneesthesia, as it is that Columbus was the discoverer of America. Each was followed by other daring and enthusiastic explorers, who enlarged the boundaries of regions previously unknown. Both were neglected, maltreated and robbed, while alive, of their well-earned honors, by those who had been friends and counselors, and both, overwhelmed by disappointment and grief, died, as it were, of broken hearts."

Phstetrics.

CHLOROFORM IN LABOR.

How does it act; how, under what circumstances, and to what extent may it be used?

We are not of those who would deny its value altogether and under all circumstances; but would limit its use to cases requir ing mechanical or surgical interference; or to a time when the last stage of the act of parturition has been reached, and the suffering is most agonizing, and when it will no longer interfere with, or impede or delay the efforts of nature. Then it may perform a humane or useful service, by rendering the patient unconscious for a short time, with the least possible risk. But we must object and enter a most solemn protest against its administration on all occasions, as is the custom with some obstetricians, almost from the commencement of labor.

To fully understand the manner of its action, it will be necessary to refer briefly to the physiological anatomy of the parts involved in the process of parturition.

First, the uterus is made up of body, neck, and os or mouth. The body is composed of what is known as unstriped or involuntary muscular fibre; and is supplied with nerves from the hypogastric plexus, and is mainly under the control of the spmpathetic or ganglionic system of nerves, while the nerves that supply the neck and os are largely made up of the spinal nerve fibre. Hence,

to the body of the uterus is ascribed involuntary or reflex action; and to the neck and os may be ascribed some degree of motion and a great degree of sensibility under certain circumstances, and is the principal source of suffering during the early stages of labor.

The different anæsthetics act differently and with different results upon these several classes of nerves. Opium, for instance, in large doses, primarily, acts upon the circular fibres of the os. producing contraction and constriction, which continues several hours. When its effects pass off, relaxation follows, the circular fibres give way, and dilatation takes place with greater facility, and labor is thereby hastened. This relaxation, it is alleged, takes place without materially affecting the longitudinal and oblique fibres of the body. According to Dr. J. Y. Simpson, chloroform acts more directly upon the longitudinal and oblique fibres, stimulating them, in small doses, to "increased uterine contractions without allaying pain to any considerable degree, while a too deep state of anæsthesia interferes with both force and frequency of the uterine contractions, and even in a less degree they are not entirely unaffected;" and recommends that "if the anæsthesia is too deep, and the uterine contractions consequently interfered with, all that is necessary is to abstain from exhibiting the chloroform for a short time, until the parturient contractions have been allowed to come back to their proper force and frequency, etc." This great apostle of anæsthesia here admits that it not only interferes with and impedes labor, but that frequently he has to suspend its use until nature has had time to rally, and renew her attempt to complete her function. But this is not enough; determined to still further interrupt nature in her efforts, and possibly impair her ability to complete her functions, Dr. Simpson directs that the "anæsthetic agent must be still sustained, but in much smaller doses, and now only with each returning pain." Mischief has been done, we must be more cautious. The progress of labor has been delayed and prolonged, the suffering of the patient and risk to the child have been increased; and yet we are directed to repeat the same mistake, but to go cautiously, or we shall fail of carrying out what he claims to be an act of humanity, in relieving suffering, but not unfre-Sept-2

quently at fearful expense. This can hardly be an act of kindness to mother or child, even though no other unfavorable consequences should result.

We quote again Dr. Simpson, page 202: "Anæsthesia vapors, when given even in large doses, have less power in reining up the actions of the uterus in the last than in the first stage of labor." The admission that they do so rein up and interfere with the physiological functions of the uterus is no very high recommendation for their indiscriminate and too early use. And adds: "And as the sensation of pain becomes more agonizing, as the head is descending upon the perineum, and passing through the vulva, the anæsthetic state usually requires to be more deep and complete, etc." Again; "The degree and depth of anæsthesia which different patients are capable of bearing, without the irritability and contraction of the uterus being interfered with or impeded, appears to differ greatly in different persons." The degree and depth of anæsthesia is to be measured by the capacity to endure it in each particular case; and this can only be known by testing that capacity, the unfortunate results of which, we are called upon to witness much too often. "In some, a very deep state will still leave the uterus almost altogether unaffected; in others, its actions are interfered with by a comparatively slight degree of anæsthesia." It has been our misfortune to have never met with a case, in which the early administration of chloroform or ether did not interfere with, and, in our judgment, delay the different periods of labor; and, as to the result of its administration, we have very frequently seen blue or asphixited children.

Drs. Moir, Keith, Dyce, and many others, reporting to Dr. Simpson, sustain his statements as above quoted. These gentlemen are all advocates of the liberal use of chloroform. In allwe have quoted, no reference has been made to the views of any of its opponents; nor need we refer to them; enough has been drawn from among its advocates to condemn its use in all ordinary cases, and to require the utmost care and discrimination in all, even the class of cases excepted at the commencement of this article.

It would seem that when chloroform is administered, accor d

ing to the best authorities, in quantities sufficient to induce anæsthesia, it is liable to suspend the functions of life; and, in some cases, even very small doses produce that result.

The primary effects of chloroform are benumbing—paralyzing the nerves of sensation, both general and special. If carried a little too far, the effects extend to the nerves of organic life (the sympathetic), which are affected in like manner. In labor, the uterine contractions are interfered with, and the progress delayed; the child is detained longer in utero than it otherwise would have been; the vapor of chloroform enters the lungs, and is there absorbed; the blood becomes saturated with it; it is carried through the circulation of the patient and into the uterine sinuses; and thence is transmitted through the placenta into the fætal circulation, producing asphixia of the unborn babe. Hence, it is with some show of truth, that the opponents to its use claim that we have more asphixiated children since its introduction into use than before. Again, this delay or interruption of the uterine contractions too often calls for forceps, (in the opinion of the accoucher,) when the case might have terminated favorably without them: the unconscious condition of the patient, too, is too strong a temptation to be resisted. Many cases are reported in our medical journals which bear the impress of too great facility in this particular.

Occasionally craniotomy and evisceration are the only means of saving the mother. A case of this character occurred a few years since in this city. It was a case of primipara, in a fine healthy woman 22 years of age; following the advice of her physician, she commenced taking chloroform and ether mixed, soon after labor set in. The physician arrived in about two hours, found her taking the mixture at every returning pain, sufficient to ease her, and directed its continuance. At the end of six hours the waters had been discharged, the os dilated, but pains inefficient; and, consequently, but little progress made. As soon as a pain advanced, it was stifled with the anæsthetic, and thus continued for several hours longer, when it was decided that craniotomy must be performed, as it would be impossible for the child's head to pass through the pelvis. The lady has, however, had three children since, all of large size; the last, a twelve pounder

The first was, without doubt, a sacrifice to chloroform and art. It is alleged, that, since the introduction of chloroform into obstetric practice, puerperal mania has been met with more frequently than formerly; admitting this statement to be true, it is denied that chloroform has been the cause of it, and that luxurious habits of living, developing increased sensitiveness and nervousness; are sufficient to account for many of these cases, without ascribing them to chloroform. In support of the allegation. however, it must be admitted that mental illusions, and sometimes permanent alienations, follow its administration for the extraction of teeth, and for surgical operations. A few years since. a dentist in one of our large eastern cities, was accused by one of his patrons of taking liberties with her, while in the dental chair. On the trial of the case, the testimony of dentists and surgeons of most extensive experience showed that such conditions frequently followed its use in their practice and, that patients many times remained in this condition for a long time afterward. Some cases are reported in army experience, during the war of the rebellion, in which men who had been subject to its use during surgical operations remained, after its anæsthetic effects had passed off, under the impression that they were engaged in battle. building breast-works or in charging the enemy. It would not be wonderful, therefore, if this agent produces such effects upon strong and rugged men, that women, in this most trying. highly sensitive and delicate of all conditions, should be affected in a similar manner, and even to a greater extent. No one can say, with absolute certainty, that the mania following parturition in a particular case was the result of the chloroform used; but, from what we know of its effects in other cases, we have reason to believe that mental aberations are greatly aggravated and intensified by it, and are more liable to remain permanent,

It is the universal testimony of those who have taken this agent to any extent, that nervousness remains for hours or days and sometimes for months afterward; and in other cases the effects of even small quantities remain for an indefinite length of time. But there are persons who should be absolutely prohibited its use; such as have organic disease of the heart, lungs, liver, or kidneys; or fatty conditions of these organs. When death

has followed the exhibition of anæsthetics, and post mortem examinations have been made, it has generally been found that some, and occasionally several, of these organs have been diseased.

When it has been decided that chloroform is to be given and none of the above conditions forbid it, it should not be administered in a time less than three or four hours after eating a full meal. The patient should be in a reclining or half recumbent position, on the side or back, as is most convenient. ing about the neck, chest and waist should be made loose, to give free motion to every part and organ. Then fold a common napkin over the hand in a cone shape, leaving both ends open, the smaller one at least two inches in diameter, to admit a free access of air; pour about two drachms of the anæsthetic upon the inside of the folded napkin, and apply the larger opening over the mouth and nose of the patient; direct the patient to breathe slowly, and take deep, full inspirations. If the vapor induces coughing, suspend it for one or two inspirations. Watch the pulse and respiration from the first inhalation to the last; this is absolutely necessary to avoid danger; these functions afford the only true indication of its approach; stop immediately if the pulse becomes weaker or the respiration heavy or irregular. Any hesitation or faltering in either, demands the instant suspension of the anæsthetic. Should pallor of the face, coma, or fainting ensue, depress the head, and elevate the feet to an angle of thirtyfive or forty degrees. See that the tongue has not fallen upon the epiglottis; if so, draw it forward and resort to artificial means for inducing respiration, with gentle and slow motions of the chest. Be very careful that the motion is not violent or rapid, or the object will be defeated. By observing this latter precaution, life may yet be restored in many cases which, without it, will be lost. OWENS.

Self-retaining Drainage-tube.

OVARIOTOMY.

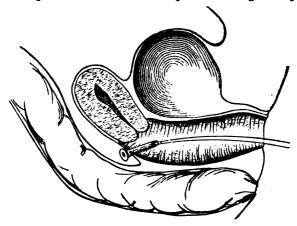
An able article upon this subject appears in the Eclectic Medical Journal, for September, written by A. Jackson Howe, M. D. It would give us pleasure to reproduce, if it were possible, the entire article, as in the general discussion of the subject there is an up-to-dateness not always found among medical authors. We must content ourselves in presenting that portion wherein Prof. H. suggests some novel and withal yery sensible features in the The data of the author are quite too scanty for anyoperation. thing like a final conclusion. They have a prima facie character that commends them to the surgeon.

"The next step in the operation is to establish drainage. self-retaining drainage-tube, made of silver, and of the size and shape represented in the accompanying diagram, is to be introduced into a puncture made from the Douglas cul de sac to the

The insertion of the tube is accomplished as yagina. follows: the left hand of the operator is carried through the ventral incision, even to the pelvic cavity, behind the Then the fingers grouped at the points rest in the bottom of the Douglas cul de sac, or the recto-vaginal fossa. The hand directs a trocar and canula (the latter the size of the drainage-tube), along the vagina of the patient till the point of the instrument rests against the peritoneo-vaginal septum, opposite the fingers of the left hand. The fingers in the abdominal or pelvic cavity feel the presence of the point of the trocar, and hold away folds of intestine, so that the plunge of the instrument shall not do mischief. After the plunge is made, the left hand fingers hold the canula while the right hand withdraws the trocar. The right hand then lays down the withdrawn trocar, and takes up an eyed probe, which has a piece of silver wire reaching from its eye to the hole in the point of the The probe is carried along the inside of the left hand to the peritoneal end of the canula, the left hand assisting an entrance of the probe to the open mouth of the canula. The probe is easily made to pass through the canula and to appear at the vulval aperture, where it is grasped with the fingers of the right hand, and

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brought out. The wire, reaching from the probe to the tube, is now pulled upon, carrying the tube into the abdomen, and directing its small end to the mouth of the canula, where the fingers of the left hand guide the instrument, while the right hand removes the canula and pulls the tube into the peritoneo-vaginal aperture.



The self-retaining tube in the periteneo-vaginal septum. A small wire reaches from tube through vagina to thigh.

The enlarged head on the tube renders it self-retaining. The perforations in the head and neck of the tube being large, readily admit the passage of fluids, and even small coagula. If the tube be introduced into the lower part of the recto-vaginal fossa the pelvis will be freely drained. The ends of wire reaching from the tube through the vagina and vulva may be attached to a tape surrounding one thigh. The wire is a guide to the tube and prevents it slipping upwards. It is also needed to pull the tube into the vagina when removal is necessary. The enlarged head of the tube makes the instrument self-retaining; yet the peritoneovaginal tissues are sufficiently yielding to allow the tube to be dislodged under moderate force.

Within a few months I have used the self-retaining drainage-tube in four cases. In the first instance the tube drained the abdominal and pelvic cavities thoroughly, no unpleasant symptoms occurring during the period of recovery. Dr. Sharp, of Lexington, Ky., under whose charge the first patient was for sev-

eral weeks before and after the operation, injected through the drainage-tube carbolic acid largely diluted with water. This always gave relief when restlessness and fever came on. The tube discharged about a pint of fluid a day for several days, then less and less, till the flow, about the twentieth day, ceased, when the instrument was removed by gentle traction. Some fluid leaked through the aperture for several days, and then the discharge ceased altogether.

The next patient on whom I operated was Mrs. Thomas Gor-The tumor was multilocular, and exdon, of Snow Hill, Ind. Mrs. Gordon had tensively adhered high up on the left side. suffered pains, perhaps from inflammatory attacks, in that region. I am satisfied that no great violence was done to important viscera while breaking up the adhesions, yet I feared subsequent trouble. The patient did exceedingly well until the twelfth day. when the tube failed to empty the abdomen of fluids. Distress, restlessness and delirium came on, and all the signs of 'peritonitis' were present; there were vomiting, tympanitis and prostration. These symptoms were not different from those present in ordinary cases which prove fatal after ovariotomy. Perhaps injections of dilute carbolic acid through the tube would have relieved the distress; if not, then the ventral wound should have been opened, to allow a free discharge of pent-up fluids. Even if one suture had been taken out, and a gum catheter pushed into the pouches, or recesses, of the peritoneal cavity, the fatal pyæmic fluid might have been evacuated. But the attending physician lived ten miles away from his patient; and there was delay in sending for him, so that twelve hours or more elapsed from the commencement of the attack before his services were at hand; and then the patient was moribund. The result of this case led me to devise means for ventral as well as pelvic drainage.

The third operation was performed in Logansport, Ind., three days after the operation upon Mrs. Gordon, and, of course, before I could know the result in her case. The patient had a monocystic tumor, which secreted pus, as had been ascertained by Dr. Shultz in two or three tappings. The case was not considered a favorable one on which to operate, on account of suspected complications, and the very delicate health of the patient.

The operation was executed very quickly, not over thirty minutes being occupied in administering chloroform, incising the abdominal walls, tapping the cyst, dislodging it, ligating the pedicle, inserting the drainage tube, sponging the peritoneal cavity, and closing and dressing the ventral wound. Considerable prostration followed the operation, yet the patient gradually rallied, and made a satisfactory recovery. By accident, the drainage tube was pulled out of place after being in ten days, yet fluid continued to discharge for several days through the aperture the tube had occupied. As this opening closed or grew small by the healing process, the patient began to exhibit signs of "peritonitis;" the abdomen became distended and vomiting set in. Luckily, at this critical moment, the ventral wound tore open to an extent sufficient to permit of free drainage; and a quart of purulent, fetid fluid was thus evacuated in a few hours. The discharge from the ventral opening continued for several days.

The fourth operation was upon Mrs. Edwards, colored, of Boone Co., Ky. As the patient was fifteen miles from the city, and in the hands of non-professional attendants, I prepared for *rentral*, as well as *pelvic* drainage. I had a leaden tube made, which was cut into at each end to admit of rays being bent out,



after the manner of an eyelet. This I put in at the lower angle of the ventral wound, and secured it there by a suture above it. The rays were all made smooth, so as to rest against the peritoneum without producing much irritation. The rays of the outer end of the tube were bent down so as rest upon the integument. A com

Ventral drainage-tube (made of lead.) as well as the tube, and this was secured by an abdominal bandage. The drainage was chiefly through the silver tube in the peritoneal-vaginal septum, yet enough escaped by the ventral tube to wet the compress every day. I removed the leaden ventral tube on the twentieth day from the operation. It required considerable force to straighten the lower rays sufficiently to allow of the tube's deliverance. The sutures were taken out at the same time, and the parts left supported with adhesive strips. A female attendant removed the pelvic tube on

the thirtieth day after the operation; and no discharge or unpleasant symptom followed. In this case the ventral tube was not necessary, but it did no harm. I think it might have saved Mrs. Gordon. However, it will require much experience with drainage-tubes before their true value can be determined. Enough



Abdominal wound closed with silver sutures. The outer end of drainage-tube is seen in the closed wound. (The artist has placed it too high.)

is known to prove that there is no safety in ovariotomy unless the peritoneal cavity be drained. To perform gastrotomy, break up adhesions, and do other violence within the abdominal cavity, and then close up the wound, leaving no way for the escape of effused and extravasated fluids, are performances which denote profound stupidity. All ovariotomists know that many of their successful cases were attended with *unintentional* discharge (drainage) from the ventral wound. If no drainage tubes be used, it is my opinion that the ventral wound should not be closed, but left in a condition to allow of free discharges.

The pelvic drainage tube is a necessity in most cases. It takes fluid from the most dependent portion of the peritoneal cavity. Folds of intestine in the Douglas cul de sac may cover the holes in the head and neck of the tube, yet by pushing the tube upward an inch or so, and swaying it from right to left, as well as rotating it, may re-establish drainage.

The older ovariotomists may not admit that drainage is an essential feature of well performed ovariotomy; and their established reputations may furnish plenty of cases on which to display an aversion to innovation; yet progress will be made, and those who fail to recognize improvements, must be left behind. What

is to become of the poisonous fluids coming from the traumatic surfaces in the peritoneal cavity, after ordinary ovariotomy? The blood, serum and lymph from lacerated adhesions, the fluids exuded from the stump, and the *debris* of the same above the ligature, to say nothing of the exudations from the ventral wound which may fall into the abdominal cavity, must do mischief. The peritoneum is not a rapidly absorbing membrane, or pyæmia would oftener arise.

Fluids pent up in the peritoneal cavity may rapidly undergo changes which render them exceedingly toxic. It is dangerous even to handle the fluids found in the peritoneal cavity, when death occurs from gastrotomy. Common sense teaches that such fluids should be drained away as fast as they form. It seems to me that the time is coming when an ordinary penetrating wound of the abdomen, whether by knife or bullet, will not be closed, but enlarged, and supplied with drainage apparatus.

The injection of warm water into the peritoneal cavity through drainage tubes affords a sense of relief when symptoms of pyæmia exist. A pint, or even a quart of water may be injected at a time. As the water drains away it takes with it more or less animal matter which is undergoing decomposition. The introduction of disinfectants, such as liquid sodæ chlorinatæ, in a dilute form, may save a poisoned patient. Peaslee was the first to advocate intra-peritoneal medication, abdominal disinfection; and others have followed the plan and found it valuable to relieve pyæmic manifestations."

It is a great mistake to set up our standard of right and wrong, and judge people accordingly; to measure the enjoyments of others by our own; to expect uniformity of opinion in this world; to endeavor to mould all dispositions alike; not to yield to immaterial trifles; to look for perfection in our own actions; to worry ourselves and others with what cannot be remedied; not to make allowances for the infirmities of others; to consider everything impossible which we cannot perform; to expect to be able to understand everything.

Theory and Brackice.

CINCINNATI HOMŒOPATHIC FREE DISPENSARY, CLINICAL REPORTS.

CASE I. Constitutional Syphilis—Cervical endo-metritis— Treatment by Glycerine, Thuja, Nitric Acid and Nux vom.—Miss H., American by birth, age 30, black hair and eyes, tall of stature, had contracted syphilis nine years since, but owing to false mod esty had omitted to seek relief. As a consequence, the disease assumed the constitutional form, and the patient suffered on until compelled from sheer necessity to apply to the Dispensary for aid.

On the 9th of June '73, she presented to me her symptoms, which were briefly as follows: Severe pain in the head, eyes, stomach and small of the back; seething of blood in head and chest; disordered digestion; nausea; loss of appetite; constipation, with fecal discharges weekly of small, hard, round balls; insupportable abdominal pains, with great "bearing down" sensations; ardor urinæ and dysmenorrhea. Digital examination revealed the cervix uteri severely inflamed, and enlarged to twice its normal size, exquisitely sensitive to touch, firmly pressed down upon the pelvic floor, and the vagina hot and dry. Among general symptoms were emaciation, malaise, dragging gait, despondency, syphilophobia—in fact a characteristic syphilitic cachexia.

Treatment. For the cervical endo-metritis small wads of cotton saturated with glycerine were passed through the speculum and packed around the cervix, thus filling the vagina so as to support the womb and relieve the strain upon the uterine ligaments. The "bearing down" pains were so completely relieved as to permit the patient to walk home with ease and comfort. After 24 hours, the packing was removed and a marked diminution of both inflammation and size of the cervix. For three consecutive days the packing process was repeated, when the improvement was so decided that I discontinued the cotton and glycerine and adminis-

tered thuja 2^m and nitric acid^{1m} for constitutional symptoms. For the constipation I gave nux vom³⁰ with complete relief. These remedies were given in the order named—not in alternation.

At the expiration of two weeks, during which the patient took a severe cold, aggravating the symptoms, I found the cervical endo-metritis nearly as bad as at first. Resort was at once had to packing as before. A few applications bleached out the cervix, and coincidently all untoward symptoms disappeared.

Treatment occupied one month. The patient now, after a lapse of two months, remains well and able to do hard service.

I have since frequently used cotton and glycerine for cervical endo-metritis with satisfactory results.

CASE II. Tania Solium-Expulsion by Kusso and Castor Oil. Miss L., aged 13 years, had been afflicted with a tape-worm for upwards of two years. The patient discharged daily from two to six segments of the parasite. Her parents, unacquainted with the nature of her complaint, at my request brought specimens in a bottle to the Dispensary. Pronouncing the specimens to be segments of tape-worm, I set about its entire dislodgement. I directed a decoction of kusso to be made, one oz. to one-half pint of water, to be taken in three draughts at intervals of one hour, and to be followed by a liberal dose of castor oil, requiring the patient to abstain from breakfast on the morning of taking the remedy. Within four hours after taking the prescription, the parasite was discharged in sections to the enormous quantity of near "one-half gallon" as reported by her mother. The child is now well, appctite natural, wonted cheerfulness restored. Strength and flesh returning.

Case III. Post Diphtheritic Paralysis—Nervous Headache—Cured by Electro-Magnetism. Mrs. S., of this city, aged 47 years, stout built, plethoric, weight 225 lbs., had suffered from a distressing nervous headache for ten or twelve years, almost constantly, severe paroxysms occurring from two to three times per week, thus leaving her a very short interval of ease before another attack. These headaches were accompanied with coldness of the extremities. Three years ago last Oct., she had a diphtheria, followed in three days by complete paralysis of the nerves of volun-

tary motion, accompanied with severe pain and high fever. Her physician pronounced her disease "paralytic rheumatism." From that time until the 21st of last March, she suffered constant coldness between the 7th cervical and 6th dorsal vertebra—which never left her even in the hottest days of summer. Under judicious homœopathic treatment she had slowly recovered the partial use of her limbs. However, she did not venture to carry anything, even a book up stairs, for fear of dropping it. In fact, so little confidence had she in herself, that she was unable to go upon the street, without a cane or an attendant, because of a constant unsteadiness and uncertainty of locomotion.

For ten years past upon rising from bed and putting her feet upon the floor, she had experienced a sensation as of cold water running from the feet to the body. Ten days previous to her application for treatment, in addition to the above symptoms, she had dizziness of head, and dark red, bloated face.

My treatment consisted in the administration of electro-magnetism on the evening of March 21st, giving general application with the positive pole,—negative at the extremities. Repeated treatment on the 24th inst, which completely relieved the headache, numbness of limbs, coldness between shoulders and the unsteadiness of locomotion. She has since remained entirely free from the above abdominal symptoms, is able to work hard, to travel on foot to any distance about the city, and is ardent in her praises of electro-magnetism as a "curative agent." The only medicine given was a few doses of aconite for an attack of epistaxis.

O. W. Lounsbury,

Resident Physician.

CARBONATE OF AMMONIA IN SCARLET FEVER.

The following from the *Medical Times and Gazette*, by Dr. G. J. S. Camden, shows how blindly and how neatly an old school doctor can hit upon a homœopathic prescription. It seems a pity that such a man, with evidently some powers of observation, can make no better showing of the precise indications of am.

carb. in this disease. The fact that the child has "throat symptoms" (of what kind seems of no consequence,) is all that is needed to indicate the remedy. And then how easily he is misled by the old discarded notion that the more severe the symptoms the more medicine must be given. Suppose he had looked into the throat and carefully noted its appearance; suppose the condition of the tongue and breath had been recorded; suppose concomitant symptoms of pulse, skin, deglutition, thirst, etc., had been recorded: he would then have shown that he had artistic qualities, and was capable of scientific precision, and was not the blundering lucky prescriber he seems to be:

Never give emetics or aperients, nor bleed, nor use leeches, nor do anything to lower the power of life, but give ammon. carb. on the very onslaught of the disease, the earlier the better, when it will cut the disease short. I used it as follows:—R. ammon. carb. gr. x. vel gr. xij, aquæ 3iv., 3vj., vel viij.—for sixteen years and above. R. ammon. carb. gr. viij. vel gr. x., aquæ 3iv., 3vj., vel 3viij.— 12 years to 16 years. R. ammon. carb. gr. vj. vel gr. viij., aquæ 3iv., 3vj., vel 3viij.— 6 years to 12 years. R. ammon. carb. gr. iv., vel gr. 3vj., aquæ 3ij. vel 3iij.—4 years to 6 years. R. ammon. carb. gr. ij. vel iv., aquæ 3j. vel ij.—2 years to 4 years. Unless distilled water be used it must be cold boiled rain water filtered, the dose to be taken every two, four, or six hours, according to the severity of the throat symptoms; the quantity of water to be regulated on the same principle. worse the throat the stronger the dose of ammonia, the smaller quantity of water, and to be given most frequently. The choking from the ammonia is instantly relieved by a small quantity of cold water, but if done without the better. If the power of life is at a low ebb, wine or teaspoonful of brandy, and the same of water between each dose, and beware of aperients. have waited five or six days.

Well we have waited 10 or 12 days with equally good results. Our experience is that aperients should be wholly discarded and the bowels left wholly to themselves.

IT IS NOTICEABLE that in the United States in 1870, there were 1,345 deaths by suicide, while there were only 202 by lightning; in other words, an individual is six times as likely to kill himself as lightning is to kill him.—Hartford Courant.

CASE FROM PRACTICE.

CASE I. Prostatitis—Sulph. 30 and Sepia3—Cured.—Mr. F., light complexion, sanguine temperament, married, age 29. Some time in March, 1872, noticed a slight pain, at times only, in end of penis. Would feel it more particularly after exercise with the arms; paroxysms became more severe and frequent and were accompanied with a constant urging to pass water; when the pains were very frequent, would have to void the urine every 15 or 20 minutes, or could not retain it; very little pain or burning during the passage of the water, but terrible tenesinus, which was endurable only by constant straining for some time after the urine had ceased to flow. Nothing abnormal in appearance of water; as paroxysms became more severe, pain was like drops of hot lead from prostrate gland to end of penis; could not sit with anything touching the gland; when pains would be very severe, great urging to passage from bowels, with a feeling as if a plug was in anus; all pain relieved while straining from either passage, even if ineffectual. Prof. G. W. Barnes diagnosticated prostatitis and gave sulphur30 every morning, also cold hip baths. The baths relieved very much for a while after taking them; took sulphur as above for some weeks with benefit, when had several more severe paroxysms, lasting from one to three days each; I then gave sepia³ every morning for five months; had a few light paroxysms, lasting a few minutes, during the first month of administration of sepia, but has not had any since up to present date, Sept. 15th, 1873. B. F. J., Chesterville, O.

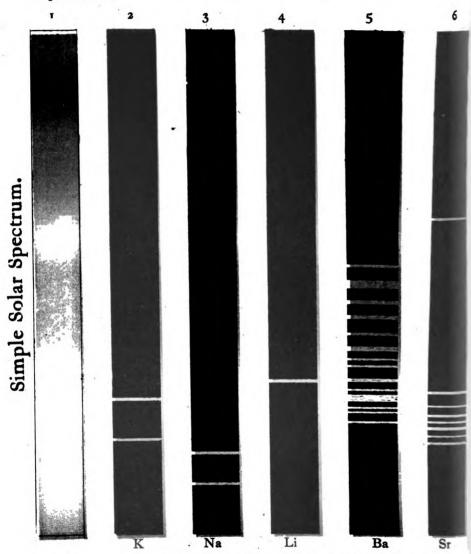
PART OF THE PROFITS (\$500,000) of Holloway's pills is to be devoted by the proprietors to the erection of an insane asylum, which is to be presented to the British nation.—Cin. Commercial.

Conscience money; It is seldom that the patrons of patent medicine are so liberally treated. Now if the proprietors of Holloway's pills will devote the remainder of the \$500,000 to the purchase of grave stones, they will have done "work meet for repentance," and perhaps Herrick, Helmbold & Co. may be induced to follow suit.

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[The names of the 2d, 3d, and 4th spectra below are misplaced. The 2d should be: Lithia; the 3d. Potassa; the 4th, Sodium.]

SPECTRA OF THE METALS SODIUM, POTASSIUM, LITH IUM, STRONTIUM, BARIUM. Solar Spectrum as it appears with a pure flame.



The above diagram is not taken from the drawings of Kirchoff and Bunsen, but from the author's experience in the analysis of the above salts with an improvised instrument. The reversed or "Fraunhofer" lines are not given. The student who has has not finished this textbook is not prepared to analyze gases.

Chemistry and Pharmacy.

THE SPECTROSCOPE.

[The following article accompanies the preceding spectroscopic plate, which Dr. Fish furnishes for the entire edition of the ADVANCE. It is taken from his Qualitative Chemical Analysis, which accounts for one or two expressions which refer to that work.—Ed.]

It is a fact long known in physics, that a ray of colorless light, ordinarily called the white light of the sun, is composed of seven colors blended, viz: Violet, indigo, blue, green, yellow, orange, red. These seven colors are quite distinctly separated by the rainbow, the raindrops constituting a multitude of little refracting prisms, and any transparent three-sided prism being sufficient to accomplish the same under proper circumstances. In fact, every substance in nature, except white and black, have the power of separating these seven colors in some degree. In the case of the prism, the light is separated by different powers of refraction in different thicknesses of prism. Thus the ray of light a is refracted from a straight course by the prism b, most at violet and least at red.* This colored figure is called a spectrum. It may be formed by any one with a three-cornered piece of glass, such as dangle from old-fashioned lamps, by letting a ray of sunlight enter a darkened room through a hole in the shutter, pass through the glass and reflect upon a sheet of cloth or paper placed at the proper distance.

In the case of the separation of light into colors by opaque objects, on every hand, whereby we say different substances possess different colors, it is done by absorption and reflection. A red object absorbs every color but red, and that is thrown back to the eye. A blue color absorbs all but blue, and reflects that only. A white color absorbs nothing, reflects all the colors. Black absorbs all, reflects nothing. Many years ago a chemist

*See plates on last page of this work.

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named Cartmell observed that certain colored glasses conveyed or transmitted only certain colors. For instance, by the analytical tables in this work we find that soda and potassa, when ignited, give the flame—one a yellow, the other a violet color. Now Cartmell found that by looking at a flame of both salts mixed, through a blue or indigo colored glass, that the yellow of soda disappeared, leaving the violet visible. The fact was studied by Bunsen and Merz, and a system of analysis very fortunately discovered for those extremely soluble bases which give colored flames. By means of colored glasses the analyst can look at a flame and distinguish the presence or absence of any color, and consequently the presence or absence of any flame coloring substance. The substance under examination is burned in a colorless flame of alcohol, or gas, on platinum wire, as directed in the tables.

It is best to have a blue, a violet, a red and a green glass.

The blue is colored with protoxide of cobalt, or a square flatsided vial or bottle may be filled with a blue solution and sealed. Ordinary stained glass (not simply coated) will do. The violet is colored by the sesquioxide of manganese. The red by suboxide of copper. The green by sesquioxide of iron and oxide of copper. The stained window-glass of commerce will answer for any of these.

From the facts connected with the formation of the spectrum, Kirchoff and Bunsen and Fraunhofer discovered a method of analysis which not only enables us to analyze rare substances in the minutest division, but to traverse vast distances and distinguish elements in the sun and stars. By taking the spectrum as it leaves the prism, confining it in a dark tube, and viewing it with a telescope of moderate power, it was discovered that the different elements in a state of combustion or ignition gave different colored spectra. While the relative position of the primary colors was the same in all, as shown in fig. 1 of colored plate, it was found that there were different proportions of each, and strange lines of different colors passing over the band of colors. Thus lithia had two bands like fig. 2. Potassium had three lines as in fig. 3. Soda had one, as in fig. 4. Barium had many, as in fig. 5, and strontia, as in fig. 6. The method of trying

for these different spectra, if you possess an instrument of value and the means for extensive experimentation, is to burn the substance under examination on the charcoal points of an electric light. But for such analysis as will distinguish the salts already known and described, an instrument and process may be used as follows:

Any artisan in novelty works can construct this spectroscope with your assistance. Take a small box of walnut, 15 inches long, four inches wide and four inches deep, (a in cut).* From one end projects a brass tube say \(\frac{3}{4} \) inch in diameter, as at \(b \). At its outer end it opens by a slit. Its inner extremity opens close to a prism of glass. In the direction of the spectrum is placed a small telescope, (of about four or six diameters power), in the position as at d. The box is closed, with means of adjusting the telescope. Take the pale colorless gas or alcohol flame, and place it about four inches from the slit, and a trifle below. extremity of your platinum wire until it discolors the flame no longer. Then dip it into the substance under examination, put it into the flame and examine through the telescope. By means of this instrument a great many interesting facts may be observed, and simple analyses obtained. It is perhaps better to begin examinations with such an one rather than with a more complicated one. A good spectroscope with appliances for observing two spectra at once, and other conveniences, tastefully mounted may be purchased at from \$45 to \$100.

But there are still more wonderful discoveries which have followed the analysis of these colored spectra.

It was observed that when direct sunlight entered the slit of the spectroscope, and was observed by a good telescope, that while the ordinary spectrum of light from red to violet was distinct enough, there were also a large number of dark lines traversing it. These dark lines made it appear as if certain rays of different colors were absent. But more singular still it was found that these dark lines occupied the same position on the spectrum, and possessed the same breadth and intensity as the bright lines which indicated different metals. It was subsequently found that when the spectra were placed side by side, one from certain metals, the other from sunlight, that there was so decided a coin-

* See plates on last page of this work.

cidence of position and character in the dark lines of one and the bright lines of the other, that they run into each other. These dark lines were first carefully mapped and studied by Fraunhofer. and they are known by his name as "Fraunhofer's lines." By the facts discovered by the coincidences of the bright and dark lines it was judged, that if the bright lines were made by certain metals in a state of ignition, the dark ones must also be indicative of such metals, and it was soon proven to be so. It was found that if a metal, as soda, was burned in the colorless slame before a powerful spectroscope, and a lime light, or electric light placed beyond it, so that the strong light should pass through the soda flame, the bright line of soda disappeared and a dark one took its place. The same change, or reversal as it is called, takes place with all metals. It is found that whenever a bright light passes through a gas or heated vapor of a metal into the spectroscope. the lines are reversed, and dark ones appear. The reason of this is supposed to be because all matter absorbs just those rays it emits, and soda, emitting yellow naturally, also absorbs the brighter vellow of the passing light, and only a darker line reaches the telescope, while the remainder of the spectrum is intensely luminous.

The uses of the spectroscope are many. It not only enables us to separate the soluble salts of soda, potassium, magnesium, lithium, etc., but it has given us a clue to the constitution of the sun and the fixed stars. It has also discovered four new elements, by lines which no known element could produce. They are rubidium, cæsium, thallium and indium. Thallium is indicated by a magnificent green line, and indium by a dark blue line. Every known substance, metal, compound or a gas gives a spectrum of its own, or of its elements, when heated to luminosity, and this grand means of discovery appears to be still in its infancy.

THE TINCTURE.

Questions were asked in the ADVANCE, some numbers since, regarding the tincture, which we propose to partially answer.

The first question asked was, "Is age of advantage or detriment?" There are very few so-called tinctures which deteriorate with age. They are not really tinctures, but solutions of volatile salts. All ordinary salt solutions and the tinctures of quite all plants improve in strength by age, from the fact that evaporation removes only the solvent for the medicinal principle. There may be a few blind chemical reactions induced by age, but if the tincture be sufficiently alcoholic to prevent fermentation, no disintegration or combination will interfere with the medicinal character of the drug. There are two volatile alkaloids-one from hemlock—(conine) and one from tobacco—(nicotine); but these two alkaloids do not vaporize without the application of heat to There is a precipitation which generally occurs some degree. in old tinctures, but it is ordinarily a very desirable one. organic gums, which are very slightly soluble in alcohol, (but more so in the mixture used in tincture making), and the resins, which are very slightly soluble in water, but soluble in alcohol, are gradually precipitated from tinctures, together with particles of cellulose, protein, dextrin, levulose, etc. The removal of these substances is to be desired, and hence the supernatant liquid is the better for the precipitation.

It may be urged that the evaporation of the alcohol from the bottle—leaving the water—naturally throws down the alkaloids which are quite insoluble in water.

But in the first place a very small amount of alcohol in a tincture is sufficient to retain all the alkaloid in solution, much more than necessary being used in order to prevent fermentation. A saturated tincture of "active principle" prepared by maceration, percolation or expression is an impossibility—unless a peculiar process requiring months or years of time is applied.

In the second place, when a tincture, prepared from fresh plants or roots, becomes so weak in alcohol that it will not sustain the alkaloid, the color of many tinctures will be modified. Chlorophyl, which gives the green color, is insoluble in clear water, and is soluble in alcohol or ether.

The second question—"Is muddiness a great discredit?" is essentially a commercial one. Muddiness may result from various causes: If the pharmacist use too much alcohol and too little water the gums will be precipitated upon slight evaporation. If he uses too much water and too little alcohol the resins will easily precipitate. If a strong tincture is prepared, nine chances out of ten either one or the other organic extractives will be thrown down. "Muddiness" is anything but a test of quality either one way or the other. Clearness is no assurance of good quality. Tinctures do not precipitate so much now as formerly for the reason that percolation has succeeded maceration, and the admixture of certain strata of percolated fluid is sure to result in a liquid far below saturation of medicinal principle.

The question "Should pure tinctures be dark colored?" is unanswerable. Nature made some extractions dark—some light. Digitalis and nux vomica are never naturally alike. Any attempt to precipitate the chlorophyl or decolorize otherwise, would be exceedingly apt to remove the crystallizable salts and bases as well.

"What are German tinctures?" As a general thing "German tinctures" are a humbug. Not but that tinctures are made in Germany; nor but that the tinctures advertised as such are good tinctures. But as to any peculiar advantages in the processes used in Germany, or any peculiar results obtained by the expression "German tincture" is a fraud. There are a few tinctures sometimes imported from the continent, because the tinctures of some few plants are better made from the fresh herb, but these are few and far between, and seldom "sent for." The general idea prevails that the Germans, and the homoopaths all over the world, prepare a better tircture than anybody else! Well, in a measure this is true. True, because greater care is doubtless taken in securing proper material, and in filtering. That is about all. A great many retail druggists purchase the "solid extracts" and dissolve them again to make tinctures, but there is neither sense nor economy in it, and nothing to be gained by a homeopath doing it. Maceration and percolation are pretty much the same thing the world over, and the German pharmacopæia, the Dublin pharmacopæia, the British, the American and the homeopathic are only different expressions of the same principle. Great strength has not been sought for at all in tincture making.

The two objects sought for in different authorities are—first, a preparation of *standard* strengths, as a guide in manufacture; and secondly, to get out as much of the active principle from the plant as possible, so that there shall be little waste in the *debris*.

As is generally known by the profession, there are two methods in use, and if expression be one method there are three. Maceration places the divided plant substance in mixed water and alcohol, and soaks it. say fourteen days. Percolation comminutes the drug and allows a certain proportion of liquid to filter through it in a percolator. The processes are described in the U.S. Disp. The latter method has secured almost universal adoption. It is the application of a modern discovery in physics. By either of these methods there is a considerable amount of the active principle thrown away in the debris. Especially is this the case in macerating; for as rapidly as the separation of soluble material becomes more difficult the solvent powers become weakened. This is remedied to some exten by percolation, but not entirely, as the admixture of too many weak percolations with strong ones would require evaporation to reduce to a stand. ard strength. There is a method of tincture making, however which obviates this difficulty entirely. It is very little known at present, and we shall take occasion to refer to it again.

E. W. Fish.

THE MEDICAL INVESTIGATOR is one of the ablest of journals. Its name indicates its true character. It investigates. At present it is solving a difficult question. One of its correspondents has seen a dying cosset lamb, and its head and heels—the lamb's, not the correspondent's—were in close proximity. Had it belladonna or gelseminum symptoms? Was it a case of cerebro-spinal meningitis or was the animal fooling? Let us all pause until the M. I. finds out.

Surgery.

OVARIAN DROPSY,—A SUGGESTION.

We find in the report of the Illinois Homœopathic Medical Association the following colloquy:

Dr. Burt.—Would it be prudent to insert a silver or gold tube for ovarian dropsy and allow it to remain there?

Dr. Danforth.—Not warrantable in my opinion; should expect

it to kill the patient.

Dr. Burt.—Have read of a physician in the East using such means in hydrothorax, allowing tubes to remain in 18 months.

Dr. Danforth.—That is entirely a different matter—less liable to produce inflammation.

There has always been in medicine a good deal of such dogmatism. Many a valuable suggestion has been thus summarily disposed of. In the face of such ex cathedra statements, it requires some courage to push an idea that may touch upon settled max-Ovariontory has abolished many of the foolish notions that our surgeons have entertained about the special liability to inflammation possessed by the peritoneum. It would puzzle Dr. Danforth to say why the peritoneum was more easily and unpleasantly afflicted than the pleura. It is within our recollection when surgeons were very fearful about wounding the pleura and of letting air into the thoracic cavity. Ovariotomists know how much less danger than was formerly supposed to exist, there is in handling, cutting or tearing the peritoneum. The reader will do well to look at Prof. Howe's suggestion in the article on ovariotomy in the present number. It looks as though the drainage-tube would prove of immense value after such operations. Now, Dr. Danforth to the contrary, we shall insist upon the point as worthy of consideration, that a drainage-tube after tapping an ovarian dropsy is both feasible and safe. It can hardly be worse than a dozen successive tappings, and if by these means we can effect a cure by one tapping, in mercy let us have the thing tried. Dr. Burt's knowledge of paracentecis thoracis is hardly complete, since he mentions a drainage-tube in that connection as something done once upon a time by an eastern physician. It has been done a good many times by western surgeons, good doctor.

AMPUTATION AT THE SHOULDER JOINT.

The rule in surgery, which seems to be fully established, that the nearer the body the greater the risk in amputations, suggests the propriety in hip and shoulder joint operations of considering carefully any measures of procedure calculated to diminish this risk. Prof. McGraw, of Detroit, suggested the capital idea in hip joint amputations of removing the bone from the acetabulum, when practicable, and dividing the soft parts at a greater distance from the body, thus avoiding the division of so great amount of tissue, and really removing the amputation to the junction of the upper and middle third, or even lower than this point in some cases. I had practiced upon this idea in injuries of the shoulder joint, but had not considered the importance of the principles involved until reading his paper, when the value of the suggestion was better appreciated.

In injuries of the bone and soft parts about the shoulder, it is not very unusual to be able to remove the shattered bone from the joint, and divide lower down upon the arm the lacerated soft parts of the arm, which in the usual method of amputation at the shoulder joint were wholly sacrificed. These boneless stumps are of no great value in the motions or adjustments of artificial arms, but they are not altogether useless; they maintain the contour of the shoulder, and above all, it is believed that oftentimes the risks attending the operative procedure are greatly lessened, and the operation, in controlling hemorrhage and tying the vessels, much simplified. The results of some recent cases have impressed me with the conviction that when the system is greatly reduced by loss of blood or from effects of long continued disease, the value of this procedure cannot be over-estimated.

A patient entered the General Hospital, at my request, for the purpose of exsection of a part or the whole of the humerus, as found necessary. Being bloodless and suffering from profuse purulent discharge, it was hoped that increase of strength and flesh might be obtained by a few weeks delay of the operation. Disappointed in this, it was soon apparent that he must lose his arm or life, or probably both, the disorganization of the arm being complete, having become a suppurating mass from within five or

six inches of the joint throughout. The idea of making the usual operation of amputation at the shoulder joint was scarcely feasible, as our patient was hardly alive and could not be expected to bear much operative interference. The diseased bone was divided near the middle with a chain saw, and the upper fragment carefully detached from the soft parts and glenoid cavity and removed. The vessels were now easily controllable by grasping through the soft parts, and at a distance of about five inches from the joint the soft parts were divided, the vessels tied and parts approximated and retained by adhesive plaster, and warm water dressings applied. To the surprise of us all, the patient did not seem to suffer from the operation, no blood was lost, and but little living tissue was divided. He made a good recovery, gained rapidly in flesh and strength, and left the hospital in three months fully recovered.

The second case of this character was from railroad injury. The attempt to save the arm having failed, Dr. Green, of Buffalo, invited me to amputate at the shoulder joint. Mortification had left a line of demarkation four or five inches from the joint. The bone was shattered and now partially separated from the soft parts. With but little hope of saving the life of this patient, we yet removed the bone to the joint, divided what of tissue remained alive at about five inches distant from the body, laid the parts gently together, retaining them with plaster, and applying warm water dressings. This patient recovered without an unpleasant symptom after the operation, from a condition of depression and bloodlessness, which according to my observation is generally fatal.

My third case is a recent one, and more strongly impressed me with the advantages of removing the bone first and then dividing soft parts at as great a distance from the body as circumstances will permit. A young man had an arm lacerated and completely destroyed by railroad accident. The soft parts were torn to within about four inches of the body, the bone broken to near the joint, the fragments loose and pointing into the flesh in all directions. The patient suffering from shock and loss of blood, was so nearly pulseless that it seemed scarcely proper to make any interference; but after delaying for the effects of stimulants a little,

the head of the bone was carefully disarticulated from the glenoid cavity and the brachial artery ligated. After this, the remaining soft parts were divided at a distance of about four inches from the body, and the parts loosely approximated with a suture or two and adhesive strips. The patient rallied and gradually recovered. This process consists in simplifying the operation as much as possible, and in this I believe consists the advantage of the procedure.—J. F. Miner, M. D., Buffalo Med. & Surg. Jour.

BUTTERMILK VS. MORTIFICATION.

This article has always been considered a standing joke; please put it among your most valuable remedies. Our neighbors, professional and non-professional, of the British Isles and continental Europe use it in that class of diseases called zymotic. We believe it has anti-zymotic virtues, but its greatest remedial powers are manifest in the treatment of mortification. We first used it as a local application at the suggestion of our esteemed friend, Dr. J. T. Carpenter. A boy aged sixteen had his arm severely bruised and lacerated, having been run over by a railroad wagon. The skin was almost entirely gone from the wrist to the elbow; the muscles were bruised and torn, and the radius scraped by the flange. Mortification followed, and despite poultices, nitric acid, and nitric acid lotion, nitrate of silver, and everything else, vesicle, bleb, spacelus followed vesicle, bleb and spacelus, inch by inch. The Doctor was called in consultation. and fully agreed with us that there was little or no hope of saving the limb, and that we should amputate the next day. It was in the country; the dressing was used up, and buttermilk was resorted to for the night. So marked was the improvement next morning that this dressing was continued and the boy made a good recovery. We have since used it satisfactorily in many lacerated wounds threatening mortification, the severe scalp wound already noted included.—Dr. T. J. Hutton, Med. & Surg. Reporter.

THE EASY, SAFE AND RADICAL CURE OF VARICOCELE.

The important points are thus summed up:

- (1) A thorough emptying of the bowels immediately before the operation, so that the patient will not have to leave the recumbent posture for three days.
- (2) A passing of the wire behind the vein while the patient is standing, the vein being then swollen large, and easily defined and separated from the vas deferens, etc.
- (3) A passing of the wire in front of the vein, with a blunt needle, while the patient is recumbent and the veins empty.
- (4) The administration of chloroform at the moment of tightening the ligature.
- (5) The preservation of the recumbent posture for three days, and the removal of the wire from around the vein, then administering chloroform to prevent pain.
- (6) The using of pure and very flexible silver wire, the leaden button and India rubber spring. The doctor claims originality for keeping the patient in a recumbent posture, and so the veins empty for three days, a sufficient time to enable the plastic lymph to close the veins permanently.—Dr. Henstis, N. Y. Med. Journal.

Physiology, Microscopy, Etc.

NUTRITIVE ELEMENTS.

Matter has been found to possess certain general characteristics, qualities inherent in all matter so far as we have any knowledge. The matter of life is no exception in this regard; indeed it is only by virtue of these correspondencies that substances are denominated as material. However widely one substance may

differ from another, there is still something in common between them; and where the chemical combinations seem to be identical, the same elements combining in the same proportion, as for instance, turpentine and oil of roses, there seems to be an essential difference between them.

Now it is necessary that we recognize both this difference and this correspondence. Any investigation which loses sight of either of these conditions, must arrive at false conclusions. The physical basis of life is grounded in the general characteristics of matter, while the functions of life are made possible by the variations wrought in matter through its redistribution. When, therefore, it is asserted that living matter is essentially different from non-living matter, and is never derived from it, or converted into it, we naturally desire an explanation of the term essential. If by that is meant, without relation, a separate and distinct creation, holding nothing in common, then we reply that the facts warrant no such conclusion, a conclusion that can only be arrived at by examining results and ignoring processes.

The process by which any given result of organization is achieved is never repeated; no two elements of an organism, even when of like tissue, can be regarded as precisely alike; and we cannot conceive it possible for any given tissue to have arisen in any other way than that in which it has arisen, for a modified process would bring a modified result, there being always a range of variation within certain limits. The terms *living* and *dead*, as applied to matter, represent only certain general characteristics.

Some animal existences manifest the characteristics of life so feebly, that it is difficult to distinguish them from so called dead matter, and because no abrupt transition from living to dead matter has been observed, it is believed by many that no such transition at all takes place, when the fact is that it takes place continually, and that only by virtue of its occurrence can life be maintained. Waste of tissue is recognized as the condition of its activity, while repair of tissue is the condition upon which life is based. The materials for repair are derived from the food; these are called nutritive elements. The absolute demands of nature, both as regards quantity and variety of food, are much

more simple than most people imagine. Did the system absolutely require a sumptuous instead of a frugal diet, society would have to be reconstructed or the earth would become depopulated. But we are at present concerned less with the necessary quality or quantity of food than with its relation to nutrition. The tissues of the body, while in a healthy condition and performing their functions, are said to be alive. And these tissues are constantly wasted by functional activity, and as constantly repaired from materials introduced as food.

Now any elementary substance, as oxygen for example, must be regarded as the same, whether entering into the composition of living tissue or existing outside the body in inorganic compounds. The essential difference between living and dead matter consists in the different grouping of atoms, and the manifestation of those forces incident thereto. And this difference is essential just to this extent, that while the elements are the same, capable of an arrangement which in one instance manifest physical and in another organic force, each individual grouping or redistribution of matter is unlike any other. The only essential difference, then, is in this arrangement, and this difference is as great between two organisms as between an organism and so called dead matter. There is no wide gap, no abrupt transition in either, or in any case.

It was originally believed that as soon as food reached the stomach it was by some hocus pocus vitalized; this was the beginning and the end of not only what is now termed digestion, but included absorption, assimilation and nutrition as well; and even at this late day, when physiology not only comprehends most of the details of digestion, but when it is performed in the laboratory of the chemist, we hear men, even in the American Institute, talking of the vital principle in as vague a sense as that in which it was used two centuries ago, and condemning that infidelity which sees no essential lerence between living and dead matter beyond a redistribution of elements and forces essentially the same. Now it is possible to recognize a correspondence between two substances, or between two forces, none of which we may thoroughly comprehend, just as we might have a resemblance between members of the same family without intimately

knowing either. But if in addition to this general resemblance we find on more intimate knowledge a closer resemblance in details, we are led to believe that there is kinship between them.

The riddles of organic life are not all solved. What do we really know about the mysteries of catalysis, whether occurring in the yeast mixture, or in the human stomach? This same catalysis is to us of to-day, what the vital principle was to the physiologist of a century ago, but look at the ground that has been reclaimed, and see how the problem has been narrowed down! Science has accomplished just this: In place of cutting the Gordian knot by which existence is maintained, it has patiently taken up the tangled skein and, following it out in detail, has assigned the greater part to physics and chemistry, pinning here and there a knotty point in a corner, which it proposes to work out at leisure.

Whether these remaining problems are ever to be unravelled, who can tell; but certainly these busy workers who have already accomplished so much, will not be deterred from the attempt by the cry from certain quarters that it is impossible and sacrilege to attempt to fathom the mysteries of existence! In vulgar parlance, that is "too thin" and too old, and has lost its terrors.

Aside from the direct issues of scientific investigation of organic processes, look at the outgrowth, in ameliorating the condition of mankind, and decreasing human suffering; in the preparation of food for infants and invalids, in localizing disease, and in preventing its recurrence. Just to the extent that the nature of disease is comprehended, will it be prevented, and conformity to the laws of health will take the place of the administration of drugs. And thus will the two most potent destroyers of human life be themselves destroyed.

J. D. Buck.

THE UNITED STATES MEDICAL AND SURGICAL JOURNAL for October is unusually good. Although one of its editors is given to sophistication of extracts from other journals, it maintains a praiseworthy standard. In a practical way it is not excelled.

Proceedings of Societies.

NEW YORK STATE HOMŒOPATHIC MEDICAL SOCIETY—SEMI-ANNUAL MEETING HELD IN BROOKLYN, TUESDAY, SEPTEMBER 9, 1873.

The Homœopathic Medical Society of New York State assembled in the Common Council chamber, in the city of Brooklyn at 10:30 A. M., on Tuesday, September 9, the President, Dr. E. D. Jones, of Albany, in the chair. Shortly thereafter Mayor Powell made his appearance, and at 10:40 proceeded to address the meeting, having been introduced by the Chairman in a few spirited and welcoming remarks.

Dr. Gray, of New York, read an elaborate paper on Medical Education, supplementing it with occasional and collateral remarks. Dr. Gray afterward read the "Rules and Regulations of the Regents of the University of New York," in many of the sections of which it was the purpose of his lengthy essay to point out a noticeable accord with the best methods of examination among students. He suggested, in conclusion, that prizes of merit be awarded those students who attain the highest honors.

Dr. H. R. Stiles presented a paper on "Emotional Insanity," prepared by Dr. Samuel Worcester, dilating upon its numerous phases, and instancing the prevalent opinions as to its cause as entertained by eminent students throughout the world. The paper was exceedingly comprehensive and elicited full interest throughout.

Dr. Gray moved that Dr. Stiles be appointed a committee of one for the purpose of disintegrating the able document on insanity by Dr. Worcester, in so far as to present the subject in its separate parts for discussion, which was unanimously carried.

Doctor Stiles submitted an encouraging oral report of the condition of the Middletown Homœopathic Insane Asylum, of which he is Superintendent, in which, after narrating the numerous obstacles encountered by him upon assuming its charge, he submitted in detail a statement of its advantages in all the various de-

mands that present themselves in the management of insane asylums in general.

He stated that last June the building was in an unfinished condition. Within the last two months progress has been made toward the completion of the first building. They have now a building 175 feet long, four stories high. Yesterday they commenced a new building 195 feet long and three stories high. The new building, when completed, will accommodate from 90 to 115; possibly more, if crowded: which, however, he does not believe in. They had there an elegantly located farm of 250 acres, and received their water from the reservoir of Middletown. The building will be lighted by gas manufactured on the premises. He extended an invitation to members of the Society to visit the institution. He would submit the architectural plans of the building in the afternoon.

Dr. W. H. Watson presented the following as having been passed by the American Institute of Homœopathy at its late session at Cleveland, Ohio, supplementing the resolution by somewhat lengthy and patriotic remarks, advocating the claims of homœopathy by reason of its marvellous growth and its widespread influences, and protesting against many of the assumptions of the allopathic branch of medicine:

Resolved, That the homomopathists everywhere should strenuously insist upon the non-violation of the great fundamental American principle of "no taxation without representation" by sectarian monopoly, either of national, state, county or city institutions, supported by legal assessments, or of those private electrosynary institutions which derive their support from individual contributions.

Dr. Watson urged the adoption of the resolution, saying that the homeopathists had now become so large a body that they should be treated with exact and impartial justice, and not be pushed aside by allopathists. It seemed to him that it was their duty, at this time, to create a public sentiment. It is an old saying that whom the "gods would destroy they first make mad," and this was the condition of the allopathists to-day. There was no better opportunity than the present for homeopathists to take a stand.

Oct-4

The resolution was seconded in a few pertinent remarks by Dr. A. E. Sumner, of Brooklyn, who spoke of some of the abuses sought to be eradicated by the resolution, mildly denounced the proscription of homeopathists from service in the Police Department, and inveighed against the allopathic monopoly of all the municipal and eleemosynary institutions of Brooklyn. It was some comfort, of course, that many of our civil magnates are devotees of homeopathy, and among them he instanced Mayor Powell, and other prominent citizens; but the fact remained that the peculiar claims of the science had been systematically denied. The resolution was adopted.

The Secretary then offered a report on the general condition of Homœopathic Societies throughout the state, prepared by Dr. H. M. Paine, Chairman of the Bureau of Medical Societies and Institutions. There are in this state twelve hospitals, sixteen dispensaries, one insane asylum, four medical schools and forty county and local medical societies.

AFTERNOON SESSION.

Dr. Helmuth, of New York, read an able and instructive article on the subject of Plastic Surgery.

Dr. Houghton, of the Ophthalmic Hospital, of New York, invited the members of the society to visit that institution, and gave a hasty sketch as to its capacity to accommodate patients, its workings, etc., stating that the institution would be able, when completed, to accommodate some 240 patients. He then presented to the society a treatise on the subject of "Aural Diseases of Children," giving the history of several cases which had come under his observation in the course of his practice. This essay elicited remarks from Dr. Searle and others which were very interesting, many cases being referred to by them.

Dr. Lilienthal, of New York, read an exhaustive essay entitled "Differential Indication of Remedies in Pneumonia on a Physiological Basis," giving many illustrations in the course of his readings.

Dr. Brown, of Binghamton, made some remarks upon the subject of distinctive difference between moral sanity and insanity. In the course of his remarks he made an earnest appeal for temperance, and vigorously assailed the use of tobacco in any shape. Dr. I. S. P. Lord, of Brooklyn, who is a man of advanced years,

and whose words should have weight, indorsed the remarks of Dr. Brown and added an earnest, unanswerable argument in furtherance of the cause of temperance.

EVENING SESSION.

The members of the Society were the guests of the lady managers of the Maternite', at their institution, No. 48 Concord street. Before the company adjourned, an elegant gold watch and chain was presented to Dr. H. M. Paine, former Secretary of the Society. The presentation speech was made by Dr. W. H. Watson.

After having adopted a vote of thanks to the lady managers of the Maternite' for the bountiful reception, and to the several speakers for their addresses, the Society adjourned to meet in Albany on the second Tuesday in February, 1874.

FRANK L. VINCENT,

Recording Secretary.

BOOK NOTICE.

Qualitative Chemical Analysis.—by E. W. Fish, M. D., Prof. Chemistry in Pulte Medical College. Published by the author, at S. W. Cor., 7th and Mound Sts., Cincinnati, Ohio. \$1.75

This work bears the impress of the spirit of the year in which it is published. The method of teaching chemical science is being rapidly revolutionized. Instead of the ponderous text-books of theoretical, philosophical and constructive chemistry hitherto used, teachers are using such compends of practical analysis first. as Elliot and Storer's, Will's Tables, Douglas' Tables, etc. Fish's work is midway between the exclusive analytical tables of Wills, etc., and the more voluminous work of Elliot and Storer. It has no resemblance to the type of works represented by Fownes, Barker, Fresenius, Galloway, etc. First, it has a few necessary chapters on force and matter, etc., simple elucidation of the commonest principles of chemical philosophy and nomenclature; operations of practical chemistry, as solution, precipitation. crystallization, sublimation, the spectroscope, the dialyser, the blowpipe, etc. Then tables, with full explanations. The chapter and table on solutions is a peculiar feature, and a valuable

one; also the table of common chemicals, giving commercial, old and new chemical names, new and old chemical symbols. On the whole, the work seems to be exceedingly clear and explicit in its particular branch of chemistry.

Miscellaueous.

OUR VIENNA LETTER.—CHOLERA AND GAN-GRENE IN THE KRANKENHAUS.

ALLGEMEINES KRANKENHAUS, VIENNA, AUSTRIA, SEPT. 8th, 1873.

Editor of the Cincinnati Medical Advance:-

Cholera and Gangrene shall be the two formidable themes of my first letter from this beautiful city of Vienna. There are many wonderful, curious and most interesting subjects that might prove vastly more interesting to your readers, but novelty and diversion are not the objects observed within the precincts of this immense hospital. "Facts, not fancys" are what we are seeking, and the grave facts that have been presented to me of late, have been there 'mid cholera and gangrene. This latter made its appearance in the hospital over three months ago. It did not originate in the hospital, but was brought in with an old case of ulcera atonica that had become gangrenous, and when it came it was indeed formidable looking. At that time the surgical division was in a usually healthful condition, but in less than a week gangrene made its appearance in numerous other cases, and in spite of every precaution that has yet been instituted, such as a most thorough cleansing of every ward in this division, the use of disinfectants, and using separate utensils and instruments, and putting the patients under rigorous hygienic surroundings. separating them, and isolating these cases as well as possible, vet it has persistently remained; however, with an ebb and flow in its intensity. The ravage it has made has been fearful, patients coming in with simple wounds that would have done well

under ordinary conditions with a simple dressing, have become gangrenous, and in the end the loss of a portion or even an entire limb, and in several instances the life of the patient has been the sacrifice. All this has been a rich harvest for the student, though such a sad experience for the poor patients. Prof. Sigmundy says that it has been years since it has been in the hospital, and never in a more deplorable manner than during the present siege.

Students may read most diligently, post themselves thoroughly in the etiology and diagnosis of the scourge, study plates and wax-casts ad infinitum, yet they will fail of an appreciative understanding until they come in personal contact with it. Then the offensive and characteristic odor, the almost complete anæsthesia of the affected part, the deeply discolored and easily broken down tissue, are salient points to strike the attention, and become pathognomonic indications to distinguish this condition ever after. These taken in connection with a usually great depression of the vital powers, slow and flagging pulse, no febrile symptoms—or in later stages when the gangrene is very extensive-pulse firm, quick, running like a thread, a hundred and ten and twenty per minute, sordes, low muttering delirium. in many instances here have I seen quite extensive gangrene, and apparently little constitutional depression or irritation. treatment here varies with the different localization of the gangrene and its virulence, and the resulting depression. Where it has not become extensive and is located in deep fleshy tissue, the whole gangrenous surface is thoroughly removed by scraping, and all morbid tissue removed until sound healthy flesh has been brought to the surface; this is then dressed with carbolized oil and charpic, or else covered deeply with "gypsum powder," which is also carbolized by being ground with oil impregnated with carbolic acid. It is allowed to heal by granulation; in some few instances this has been the happy result, after one such removal of diseased tissue; but if the case proves obstinate and the gangrene reappears, this process is often again and again repeated, and if the patient is tolerably healthy, good recuperative powers, generally good results, even though a return of the gangrene may several times occur.

When the gangrene is more extensive and graver in its character, the water bath is resorted to; this is more frequently used where the extremities are the seat of the diseased action. The limb is immersed in a depth of water sufficiently to keep it completely covered, the water from 70° to 75° Farenheit, and frequently impregnated with chlorine or carbolic acid, though often pure water only is used; the water is changed three and four times during the twenty-four hours, and the limb is kept immersed in this, both until healthy granulations and pus begin to appear, and there is an evident manifestation of healthier action; then the bath is dispensed with, and the dressing of charpie or powder used. The destructive measures that are resorted to in these cases where the gangrene is virulent, reappearing again and again, are the use of the Plaster Lendorf, a terrific escharotic, or hyper-saturate solution of chromic-acid. The flesh crisps and burns under the action of these escharotics, evolving fumes that the attending physician is careful to avoid. It is terribly severe, and there is little gangrene left, after a Plaster Lendorf or chromic acid has been used. They are allowed to remain carefully watched, until they have destroyed the tissues by charring them to the depth of the healthy adjacent tissue; then the escharotic is carefully removed and the eschar allowed to slough off, many times with perfectly healthy granulations underneath, and the charpie or powder used as dressing. One case of phlegmonous erysipelas in the ward, gangrene set in and resulted in grave destruction of the orbital and temporo-maxillary muscles, and it was not stayed until the Plaster Lendorf was applied. The destruction was hideous, but the patient survives with the loss of his left eye and not a badly scarred countenance.

All that is possible to do in the way of cleanliness seems to have been done. The different wards vacated, the walls newly whitened, the wood work freshly painted, the bedsteads also undergoing this process and then kept standing for many days in the Hoi, where exposed to sun and air, the bed sacks emptied and replenished with fresh clean straw, and the covers and bed linen; weritable linen it is even though coarse, is kept clean and fresh, and yet, upon the patients occupying these thoroughly purfied and renovated wards, new case after case of this insidious

disease appears, until the good old surgeon in despair and disgust concludes it must "e'en take its course." But may it not be possible that the same meteorological condition that has given rise to an unusual amount of cholera, even for Vienna this season, may have something to do with this almost unprecedented gangrene plague that is so prevalent and obstinate here this year? Case after case comes into the hospital with some slight traumatic lesion already gangrenous when it comes in, and in several cases of ordinary phlegmon that have come in, quite ordinary in size and localization, were also gangrenous when first examined, and in these cases so little constitutional disturbance that the condition could not be solely attributed to a depraved or eachectic condition of the patient, but from some outside influence.

That there is more cholera here this year than usual, and more than the Viennese have at any time admitted, is quite true, but that it has not raged as a general epidemic and to the alarming extent that has been glibly reported and heralded abroad by the timid or sensationalists, is just as true. The general business and pursuit of pleasure by the indwellers of this good city have gone on in the usual or accustomed way, and unless one happened to come in personal collision with the cholera, they might have been here the whole season and not suspect its quite general prevalence. So while it is here and slaving its victims ruthlessly, and in some quarters of the city prevailing in an epidemic form, it is a living exemplification that every old adage must have a germ of truth in it to have given it its individual existence; as for instance, "Go from home to learn home news," or "A prophet is without renown in his own country." Within the last few weeks the cholera suddenly made its appearance in the hospital, and for some days prevailed in a typically epidemic form-truly Asiatic in its type—three or four hours only from the onset of the attack until a fatal termination. In all these instances the healthy inmates of the hospital, nurses and the serving people were the victims, and in not one instance was it a patient, a regular inmate of the wards, that was attacked. It was with some curious interest the endeavor was made to trace up the preceeding history of these patients, and find out, if possible, if in all these cases the ctims were attacked without any forewarning or premonitory indications; and so far as their histories could be followed up, in every case there was the same story, that the person had had some slight indigestion, a loss of appetite and such indications as to an observing person-of a dis.urbance more or less marked of the digestion—that would have been suggestive of care needed in a cholera season, and if proper attention had been given would probably warded the fatal explosion. It is a matter of some interest to remark that in these cases, so far as the observation could be made, though the cases have been true Asiatic cholera in their type, and occurring in vigorous and healthy subjects, that it came not quickly like the forked lightning flash, but that there were significant and portentous indications of the storm brewing, even though when it came it was swift and sure in its doom. The treatment pursued the first week after the breaking out of the epidemic in the hospital was the "cold cure," free use of ice, ice water, cold applications to the external surface, with opiates by hypodermic injections; also quinine and brandy. the treatment pursued had any connection with the suddenly fatal termination of the cases so treated is questionable, but the apparent uselessness of this plan of treatment lead to its abandonment, and the week following there was a great abatement of the death rate; but this was quite as much due or perhaps more to be attributed to an abatement of the epidemic than to any change in the treatment, for it has continued to grow less and less fatal in its results, and while it still lingers in the hospital, it is no longer regarded as epidemic in its character.

The International Medical Congress closed yesterday after a session of five days. It was well represented by medical celebrities on this side of the water, but a considerable disappointment manifested that so few of the celebrated professors from abroad should have been so little interested, and so few put in an appearance. The sessions were lively and full of interest, and a goodly amount of work and talk and many interesting discussions crowded into the short time of convention. The sessions were held in the Jury Pavillion at the Exposition, and the building was hardly large enough to accommodate those interested in the proceedings of this body. I looked in vain for some familiar name or face from among our many wide-awake medical men in

America, but the proceedings, characteristics and surroundings were so fully Germanized that it was beyond my powers to see much else than the German element, a portentous one truly here in the stronghold of medical art and science, where I hope to find much else to interest you in days to come.

Yours very truly,
DR. ELMIRA Y. HOWARD.

MEDICAL JOURNALISM.

That medical journals are not all that they should be, perhaps no one will deny; that they are not already better, is less the fault of those who make them what they are, than of another class of doctors whom we shall designate as the *grumblers*, men who have ample leisure to find fault with what others have done, but who have never made good their claims as critics, by anything which they have done either better or worse.

Admitting all their criticisms, that one article is crude, another visionary; that this writer is too young and inexperienced, and another too old and fogyish; I say, admitting all this to be true, why not Mr. Grumbler, in the name of truth and medical science go to work and do better? We have known many of these grumblers, and have yet to see the first one of them who did not begin and end with a growl. The men who are the most appreciative to-day of our medical journals such as they are, and they are poor enough at best, are the men who have helped to make them what they are, and while many of them have grown old and gray in their efforts to build up this important department of their chosen profession, and are unquestionably the best qualified to judge of the character of such work, they are the very last to censure the worker, or growl at the work because it is not all that it should be. Any dog may bay at the moon, without attempting to calcu-We have no reference to honest criticism, which late an eclipse. aims to point out errors and defects. He who assumes to be above criticism is generally beneath it, and certainly the medical writer who desires to excel, and who has his best efforts in any given di

rection criticised even severely, though not personally, will find no cause for offense.

The writer hereof well remembers being invited some years ago. to write for a certain medical journal, and after having cudgeled his brains and mailed the issue to the editor, receiving the reply: "I expected better things of you, it does not do you justice, it is not worth publishing, and I shall not publish it." Perhaps we have never done anything better since, and perhaps that ought to have been a "squelcher," and it would have been, had we not believed that facility in writing is neither a gift nor an inheritance. but the result of careful study, and repeated effort. medical journals are not necessarily the happiest of men. are generally good looking, are the husbands of one wife, usually rich, and in any controversy put in the last word, but if you examine them closely you find that they are sometimes nervous and uneasy, and once in a while they become confidential. "Dr. Aa celebrated practitioner, has sent an article for journal. On the whole it is a good article, but the Dr. is rusty in some points, and a little narrow in others. Now if I dared to drop him a line and tell him so, but no, that won't do, he would immediately stop his subscription, and write instead for the Homeopathic Thumb-screw."

"Then there is Dr. B. and Dr. C. and D., they are always full of facts when I meet them; but they never send anything for publication, trash enough already they say." Well, Drs. B. C. and D., did it ever occur to you that you are sitting in the seat of the grumblers? Do you suppose that these editors are such numskulls as to publish "trash" and "hash" and "re-hash" if they have anything better? and did it ever occur to you, that if you sent in a No. 1 article it would go in to the exclusion of less meritorious articles? I suppose these editors "make up" their "forms" as an old fellow I knew of ate his dinner, the best dishes first, which would bring the best at hand all the time, for said he, "life is mighty unsartin, and I may not live to get through to the last course."

There is not a respectable practitioner in the land who does not daily make some observation which would be of value to the profession at large, and benefit mankind; the prompt action of a remedy, when given singly, with brief indications; a suggestion as to

diet, hygiene, etc., etc., if he would but stop a moment to make a note of it. Facts would in this way accumulate, and might be classified or tabulated, and so we should have ere long the dawn of that medical millennium, when there should be an end of empiricism, Then too, there is physiology, pathology and the like, where are they to stand in medical journals? Not one physician in a thousand is permitted to make a new and valuable discovery, and yet no one work in any of these departments contains all that is known of a given subject, and suppose that some physician, even a "young man," finds special interest in these subjects, and from various sources hunts up all that he can find on a given topic, and condenses it for a medical journal, might it not reach the eye of some busy worker in other departments, who has neither the time to investigate every department, nor the necessary text-books and works of reference? He would write to some extent at least. as a specialist in that department, whatever it might be, though he might be snubbed by some grumbler who with turned up nose cried "re-hash," who after all, is perhaps deficient in that very knowledge which he here ignores.

Those who are best informed, are never impatient at the repetition of an old truth, which, however familiar it may be to them, has yet a mission to perform, just as those who have struggled hardest to overcome evil and temptations, have greater charity for the failings and follies of others.

By all means let us have better talent in our medical journals, less impatience at honest criticism, more work, and earnestness in every department, but let not the grumblers imagine themselves public benefactors, until they have put their suggestions in print and in practice.

J. D. Buck.

"SCIENTIFIC HOMŒOPATHIY."

We observe this article from The Druggists' Circular, and which we have noticed elsewhere, going the rounds of the Eclectic and Allopathic press. No doubt to many minds it is a very satisfactory statement of the case. We have attempted to show wherein it fails to annihilate the homeopathic system, and we suggest to those journals above mentioned, that they would show a commendable candor by publishing our reply. Dare they do it?

PERSONAL.

PROF. C. CROPPER, has removed from Oxford to Cincinnati. His coming will greatly enhance the working force of the College Faculty.

DR. LEFFINGWELL, after many years residence in Sterling, Ill., has opened an office in this city. As he is a live man, we may expect a good record from him while here.

PROF. J. H. PULTE returned from his eastern trip in time to be at the opening exercises of the College, with improved health. The Professor has entered successfully upon his course of lectures, much to the delight of the students.

DR. H. M. PAINE'S retirement from the office of Secretary of the N. Y. State Hom. Med. Society, which office he has so successfully filled for so many years, was properly remembered by the members at their last meeting in Brooklyn. An elegant and fitting speech by Watson, and a fine present of a gold watch and chain, marked the occasion.

PULTE MEDICAL COLLEGE opened as announced on the 26th of last month. The class of students now numbers about 50. We need not speak in flattering terms of the Faculty, or the class. They will bear inspection. The most prominent feature of the session so far, is the large number of clinics that are presented. A general medical, and a special eye and ear clinic are held daily. A very systematic course of clinical reporting has been entered upon by the students. This new feature is engaging the attention of nearly every member of the class. Already over thirty cases have been presented. Besides these, the class is in daily attendance two hours at the City Hospital.

DR. CONRAD asserts, that during an epidemic of small pox under his observation, there was an "extraordinary number of tatal cases among the Germans, as compared with other nationalities. They were in excess of either the Irish or African, notwithstanding the evidences they presented of having been repeatedly vaccinated."

Prof Saal assures us that this is solely due to the general use of feather beds, the characteristic luxury of the Germans.

THE

Cincinnati Medical Abbance

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Subscriptions to the Advance should be sent to Dr. T. C. Bradrord, P. O. Drawer 1284, Cincinnati, Ohio. — §3.00 a year, IN ADVANCE.

All business communications, relating to the publication or to advertising, should be addressed to Dr. E. W. Fish, S. W. Cor. Seventh and Mound Sts., Cincinnati, Ohio.

A WHEEL WITHIN A WHEEL.

That is what the prophet saw, and it seemed to afford him food for thought. Just now we are editorially plunged into the deepest cogitations over a similar phenomenon. There has been a Convention (with a big C.) within a convention. And like the two wheels that were doubtless mechanically perfectly adjusted and well oiled, these two conventions ran without friction or jar. The little Convention was as noiseless as a modern sewing machine, and few members of the big convention were aware at the time of its presence. It was a full month after the occurrence before it became fully known. The fuse was badly adjusted, else we might have had a tragedy such as Guy Fawkes dreamed of. Only imagine the catastrophe we narrowly es-

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caped from! Had the American Institute of Homocopathy remained in session a month longer, it would have been blown to atoms. Its next session would have been in the celestial regions among the high dilutionists. And there was no insurance on the building. We came just so near being short one medical college and our beloved Institute. What a bill of expenses would have been charged to Clark, of New Bedford, had not a kind Providence come to our rescue! This must not be again. We must not meet where these fellows can get into the basement and arrange for an incontinent adjournment of the Institute through the roof. We cannot be elevated to the higher plane of Homocopathy after that summary method.

Let the malcontents know there is mutual danger in such proceedings. A reaction might send them downwards to a lower level than ever was occupied by a mongrel. Let us thank our stars, that their pluck or luck, (which was it?) was as deficient as their wisdom. Cooke, of Chicago, will have fresh occasion to introduce some new resolutions on abortions by Conventions.

We shall help him if he does, and we trust this felonious attempt will deter no one from presenting papers that tell an honest story about his method and results of practice.

THE UNIVERSITY SCHEME, whereby by the Western Colleges are to be consolidated, is said to have sprung from the fertile brain of Dr. Daniel Thayer, of Boston. We cheerfully give place to Dr. Barnes' plea in behalf of the enterprise.* If the proposition had any foundation, in fact, it might need serious attention. Certain gentlemen were enabled to give their liberal, disinterested views an airing when the plea was before the Institute and that in our opinion is all there is to it. Prof. J. C. Sanders writes us:

"In regard to the University question, I hold the project as utopian and wholly impracticable.

1st. The state or general government could not with consistency become the patron or endower of any such school, which would be as secular as a church.

* See October No.

2d. Independent of state or government support there is no money for such a purpose. The profession surely has it not, and the money of the people can be put to better use.

3d. Better support and furnish the colleges we now have filled with hard working, studious, practical, live men. Better endow or more liberally sustain the hospitals connected with those schools. In these channels there are ample fields for the expenditure of every dollar that could by any device be obtained, either from the profession or people, for purposes of professional education."

"THE WOMAN'S MEDICAL COLLEGE of New York, advertises that it is the *only* woman's medical college in New York belonging to the regular school of medicine. Nonsense, all *bona fide* schools are regular."

So says the Golden Age. And if the same truthful opinion were uttered and enforced generally by the press of the country, it might sooner or later teach these impertinent pharisees a lesson of wisdom.

Akin to this, is the statement of Dr. Robt. Bartholow of the Ohio Medical College, that the various medical schools are to be classed as, "Allopathic, Homeopathic, Eclectic, Thomsonian and Scientific," to which latter, only he and his confreres belong. It made his audience laugh to hear such exquisite baby-talk. Poor child, will he never be able to utter more manly sentiments? He cannot find a Cincinnati audience even within the walls of his own College, that has not long ago ontgrown such foolishness.

DR. REUBEN LUDLAM, of Chicago, emphatically denies that he is the "wittiest man" in the American Institute. The editor of the New England Medical Gazette is of the same opinion. The way Dr. Reuben clears himself of the charge only makes it all the plainer that he is not so witless as he takes himself to be. We suggest a contest for the championship at the next meeting of the Institute. Having worn the belt so long, Dr. Ludlam is perhaps tired of the title.

AND NOW COMES Dr. Wm. K. Bowling, editor Nashville Med. amd Surg. Journal, and says that Dr. John C. Peters' "Notes on Asiatic Cholera"—which notes we had occasion to allude to last month—"are a tissue of misrepresentation from beginning to end." Will John C. now subside or will he make himself as obnoxious to the allopathic as he did to the homœopathic profession?

They say there was "A Homœopathic Convention" in Cleveland, the fore part of last June. It was called—in very low tones—in the interest of orthodox homœopathy. Duncan presided, Pease scribed, Gilchrist fulminated, and the entire meeting subsided when they found honest H. B. Clark had a multitude of friends in the Institute. What a fall was there my countrymen!

A PLEA FOR A POPULAR MEDICAL SCIENCE.

Through evil and through good report the people cling to three things with great tenacity. And these three things are not parents, wives and children; nor are they houses, lands and gold. What are these trifling things compared to our cherished faith in politics, religion and medicine? Go where you will, you will find all classes of society exquisitely tender upon these three points. Enter any family circle and you will find that from the oldest to the youngest they will invariably swear by father's political party, by the family pastor's theology, and by the family doctor's pillbox. Multitudes have been ostracised, expatriated or murdered on account of their politics. Multitudes also have been torn in pieces by wild beasts, or burned at the stake, on account of their religious notions. It is almost superfluous to add that numberless human lives have been freely sacrificed on the altar of medicine.

A few wiseacres among us affect to despise the medical profession. They laugh to scorn our pretensions to any higher virtuous act than narcotizing our patients and then plundering their

pockets. But the great bulk of the people swear by us, stand by us, and—no joking—die by us. It is not a small matter to the least of us whether the universal race of doctors be good, bad or indifferent. The interest that concentrates about the rise and progress of medical science is not confined to the medical profession.

Every child of man who has blood in his veins that may boil with fever, or who has nerves that may thrill with pain, is linked by just so many ties to every question concerning the cure of human maladies. Every son of Adam and every daughter of Eve has more than a modicum of interest in that science which teaches how to cure disease. Next to their religion and their politics, people expect the greatest excellence in medicine.

Yet it must be confessed that medical questions have in themselves no popular element. Our churches are crowded weekly with large, fashionable, intelligent audiences, to whom are expounded lengthy discourses on metaphysical and spiritual topics. It cannot be denied that many of these devout worshipers are drawn into the churches through motives supplied by their milliners, dress-makers and tailors. In behalf of the ladies we would, if we could, deny the soft impeachment that they use their eyes far more in measuring the wearing apparel of their church going sisters, than in looking into the mysteries of divinity. We cannot deny that they often attend divine service more to study the fashions and display their dry goods than to learn the way to heaven.

People go to church very willingly when their ears are saluted with sermons on abstruse questions; and however prolix or metaphysical the pastor he never lacks hearers. Just so the people never tire of political discussions. Statesman, women and demagogues attract alike when they hold forth on the state of the country. Taxation, annexation and confederation are momentous questions. You unfold them before the people, and they rend the air with shouts. Now, it does seem strange that medical science has no such popular side. Everybody gets sick; everybody is as afraid as death of dying; everybody employs doctors and takes medicine. But who but doctors takes any interest in medical questions? What do the public care about mortality lists—that is,

how many people are being born into the world, how long on the average they live in it, and how fast, and by what means, they are going out of it? What do the dear people know about anatomical structure or physiological function? What do they know, or care to know, about brains, or muscles, or nerves, or bones, or of the laws which govern these things, or the relation they bear to each other? How often, in fact, do most people realize that they are the bona fide possessors of such kinds of personal property? Did you ever see a man six feet high in his stockings droop under the calamity of a loss of all his worldly goods, and did you ever hear him whine out that he was utterly destitute—that he had nothing to live for-nothing to do with? And did you not wonder what he would take for his lungs-at what value he held his digestive apparatus, and his blood vessels, and his bones and muscles? Why, if such a man were dead, his body would be worth something to the medical student; and while he has a perfect body. endowed with the forces of life, he should, amid all calamities. hold himself as priceless. A sound mind in a sound body is a wealth that all India cannot buy-that kings cannot purchase. These things enrich the humblest man that treads God's fair earth beyond all the wealth of empires.

And yet these are things that men are most lavish in wasting. Few people comprehend the full value of their bodily structure. Many do not really know what they do possess. At the battle of Gettysburg, a poor fellow was struck in the head by a ball. was carried to the rear and subjected to an examination. bad," said the surgeon, "his skull is torn open and his brain exposed." The poor fellow started up at the word, and exclaimed-"Doctor, did you say I had brains in my head?" "O yes, of course you have." "Are you sure, doctor?" "Yes, I can see them very plainly." "Then," said the dying lad, "send some one to tell my father, for he always said I had not got any brains." The poor soldier is not alone in this matter, for most people leave all knowledge of anatomy and physiology in the care of doctors. To bring about a reform in this respect, and induce the readers of this journal to give more attention to these matters, is the sole object of these papers; and we leave you to ponder the foregoing and await our next article. T. P. W.

Theory and Prackice.

OBSERVATIONS ON THE HOMEOPATHIC DOSE.

Next to the fundamental law upon which our system of practice is based, there is no more interesting and important question connected with Homœopathy than that of dose, especially as regards high and low potencies; and yet, there is none upon which homœopathists are so prone to differ. This arises from a variety of causes, the principal of which I conceive to be, that the size of the dose, however minute it may be, is always relative:

1st. As regards the effects of medicines per se; and,

2nd. As regards the susceptibility and the pathological condition of both prover and patient.

To the first of these two propositions we may, no doubt, properly refer most of the contrary symptoms of our materia medica, as well as the distinction into primary and secondary, so strenuously insisted upon by Hale. But no less important distinctions are included in our second proposition, and these are generally entirely overlooked.

First, as regards the susceptibility of both prover and patient. Nothing is more certain than that a great difference exists in this respect. Our symptomatology is made up of the pathogenetic and clinical effects of medicines upon a great number and variety of constitutions, no two of which were exactly alike, or of the same degree of susceptibility; and hence a diversity, as well as a greater or less development of the symptoms, is the result. Our materia medica needs an entire revision with reference to this point alone. It would help us materially in the selection of a remedy, were the pathogenetic symptoms divided into, say three classes, according to the susceptibility of the provers. The first should include those symptoms which have been developed by every known prover. The second class should embrace those not included in the first, which have been developed by a majority of the provers. The third, and last class, should include the results

peculiar to the *minority*. Feeling the importance of such a revision, I have for some years been engaged in the undertaking; but, from the paucity of material in some cases, my progress is necessarily slow. It is to be sincerely hoped that the National Committee having this matter in charge, will neither neglect nor slight this important feature of their work.

But a still more important consideration, affecting the question of dose, is the precise pathological condition the patient. The symptoms, so far as casual observation goes, may be the same, and vet different cases, or the same case at different times, require either different remedies, or different attenuations of the same remedy. This is a matter of every day observation, and yet it is not sufficiently recognized in our therapeutics. To illustrate: A patient is threatened with congestion of the bowels. This presupposes a congested state of the portal system. The latter, more particularly, will determine the remedy. The former, including, of course, all the minuter elements of the case which go to make up the tout ensemble, and especially the matter of susceptibility, time and degree, will, cateris paribus, determine the potency or degree of attenuation. Thus, the state of greatest congestion short of actual effusion, necessarily calls for the higher attenuations, since the lower ones will be quite certain to precipitate the condition we wish to avoid. On the other hand, slight congestions, contrary to what, at first glance, we might suppose would be the ease, generally require the lower potencies, though the higher may answer the purpose; but the latter will require of course to be pushed to the point of successful reaction to be effective. The great difficulty in such cases, is to determine the exact pathological condition in question. If the tension, so to speak, of the function, or diseased action of the part, is as great as nature will bear without a decided change of condition, then the higher potencies will be most effective in subduing the symptoms for which they are given. On the other hand, using the same term as before, if the tension is light or weak, and the diseased function or action of the part is capable of a much greater strain, without any essential change in its pathological condition other than one of degree or range of action, then experience shows that low attenuations are equally, and in many cases, even more effective than the high.

In short, the whole question seems to turn upon the facility with which, in any given case, reaction is capable of being excited.

Of course there are some conditions which stand outside of this law, such as chemical, chemico-vital and toxical conditions, which it would be absurd in the highest degree to attempt to bring under it; such for example, as anamia, in which there is a notable deficiency of hæmatine in the blood. Here iron is required as a nutrient, and hence, cæteris paribus, the lower the form in which we administer it the better.

C. P. Hart, M. D.

Wyoming, O.

A CURIOUS SEQUEL TO RHEUMATISM.

Goodrich Nettleton had scarlating when four years old, but the eruption was partial and the disease light. In about six weeks after his recovery he had an attack of rheumatism in both knees, and would be lame an hour or two about the same time every day. This continued for two weeks, when his knee-joints began to swell, then his feet and hands, with only a slight redness however, yet attended with severe pains in the region of the heart. Being under the allopathic regime, the lancet was used with good success. At the end of fifteen months there was a recurrence of the same pains, with lameness and stiffness in the back of the They came on in the afternoon, and by the next morning the lameness and stiffness had extended to his hands, then down to his knees and feet as before. Phlebotomy reduced these symptoms in twenty-four hours. He was never well afterwards, and had frequent spells of spitting up clear water. At times he would clasp his hands to his stomach, and exclaim—"O ma! I feel as though I was going to die."

In the following September he had the dysentery, which was very severe and lasted many weeks, until he wasted to a mere skeleton. Opium was administered through mistake, and subsequently the left side was thrown into convulsions, which his physicians attributed to the effect of that drug in his low condition. Sometime during the winter the rheumatism appeared as before

and was mitigated again by bleeding. It was, however, followed by a singular restlessness, that made it impossible for him to keep quiet in any position; and ended in convulsions, which continued unabated for two hours. From that time to the day of his death he was subject to convulsions, at different intervals and varying in their duration and character. In the midst of his play one of his hands might begin to shake, then suddenly cease, and once his lower jaw operated in the same manner.

During these paroxysms his mind was clear, and he retained his consciousness to the last moment of his existence. day of his death he had been playing around out of doors, but in the afternoon he had began to be lame, and came into the house complaining of pain in his knees. This was followed by convulsions from which he did not rally, but died at 4 o'clock the next morning, at the age of eight years and ten months. A post mortem examination was held twelve hours after his death. was an adhesion of the inferior lungs to the plura, though not very extensive; also between the surfaces of each inferior lung and the pericardium; and between the pericardium and the heart. so closely as to leave no space. Each cavity of the heart contained an organized mass of fibrin. In the left ventricle was a lump of the size of a butternut, resembling it somewhat in shape, and in the right ventricle was another about half as large. other organs of the body were apparently in a healthy condition. These facts I learned from the parents of the child, and from an autopsical record left with them by one of the examining physi-CHARLES W. BARCOCK cians.

Lancaster, O.

ACCORDING TO The Clinic, it costs the city of Cincinnati \$1500, to keep certain parties out of the management of the hospital. It is our opinion that it would pay to spend much more money than that, before said parties should be allowed to get in. So far the money is well spent.

HOMŒOPATHIC FREE DISPENSARY—CLINICAL REPORTS.

CASE I. Intermittent Fever, Quotidian Type—Cured by Natrum Mur. 200th. Some three weeks since, while visiting a lady patient at his house, Mr. W. called my attention to his son, aged six years. An examination elicited the following facts, viz: He had a hard chill every morning at 11 o'clock, with great thirst lasting through the subsequent stages of fever and sweat; emaciation, particularly about the neck; loss of appetite; countenance sallow; great weakness; and general malaise.

Sulphate of quinine had been administered for several days without any amelioration.

In view of the above symptoms I prescribed nat. mur., 200th potency, which cured the disease in three days. The first day after taking the remedy the chill came later and was less severe; the second day, chill still later and still less severe; and the third day the chill failed to appear.

I have employed the same remedy in other cases in which the chill set in earlier and later every day, or every second or third day, symptoms aside from that of time being similar, without any appreciable effect whatever.

CASE II. Intermittent Fever, Tertian Type—Cured by Electro-Magnetism. Mr. B. of this city, aged 27 years, a Canadian by birth, after several days' travel in Southern Indiana, was, on his return home, attacked by intermittent fever of the tertian type. The chills were slight, fever intense and perspiration moderate. Additional symptoms were: severe frontal headache; pains in all parts of the system, particularly in back and legs; aversion to food, with bitter taste in the mouth; pulse during the intensity of the fever varying from 140 to 160, during the apyrexia slow with marked physical prostration.

I tried china, china sulph. and chinoidine respectively for several days without effect.

Arriving one morning just as the chill set in, and having my battery with me, I determined to try its effects. This chill was he most severe since the attack. Seating my patient on the pos-

itive electrode, secondary current, strong power, I applied the negative sponge electrode to the entire body, very especially over the spine. Three minutes treatment sufficed to relieve the chill, which was followed by slight reactionary symptoms, and no recurrence of the disease. It is now six weeks since a paroxysm occurred.

O. W. LOUNSBURY.

CINCINNATI HOSPITAL ITEMS.

Our readers all know that we are so fortunate as to have one of the largest and best managed hospitals in the country. Considered as under allopathic management it could not be in better hands. From nine to eleven o'clock daily the students of all the colleges of the city are allowed to attend upon the best of clinical lectures and demonstrations. So much is pretty well known, but it is not so well known that certain men bound to rule or ruin are doing all their evil hearts can devise to break down the good name and benevolent work of the hospital. These men, full of their self-sufficiency, are anxious to manage the institution, but the powers that be fail to appreciate their many virtues. thus shut out, these professional gentlemen find no employment so agreeable as belittling the labors of their betters. They have a journal, which, by the by, is in so feeble a state of health as to have a sickly cognomen, and a college with an honorable past, and worthy of an honorable future; and they use these two agencies as efficiently as they can to break down the present management of the hospital.

There was once a fox who by jumping and climbing could not reach the tempting fruit. After a while he had the good sense to go away quietly growling his opinion that the grapes were sour. But these men are not vulpine in their instincts. They are porcine, evidently, and they want all or nothing. But we shall take care to see that they are kept in the poke, and that they do not get in where they might do fatal mischief

A PATIENT at the hospital, having sciatica, was treated the other day to a dose of the actual cautery traced along the adjacent integument. 'Tis said the flesh and the students simultaneously hissed. In our opinion the surgeon and the students alike showed poor judgment, but the poor fellow upon whom the hot iron was laid did just right when he roared aloud.

Two Deaths from Chloroform have recently occurred in this city. One in the office of the Surgical Professor of one of the medical colleges, and the other in the hospital. Had they both occurred in the hospital we can easily imagine the result. As it is, the law regarding glass houses works to the confusion and silence of certain individuals who know a good thing when they see it, and go for it when they can do so with safety.

Makerin Mebica.

SOLANUM LYCOPERSICON AND ENLARGEMENT OF THE CIRCUMVALLATE PAPILLÆ OF THE TONGUE.

A gentleman consulted me about two months ago in regard to an affection of the tongue, which gave him some trouble. On examination I found the tongue coated to a slight extent with a loose brownish fur, more upon the back than upon the front, and the papillæ maximæ red, considerably enlarged, and the whole tongue had the sensation of being somewhat swollen. There was also a sensation of tickling and soreness, especially upon the tip of the tongue. The roof of the mouth also had an unpleasant feeling. Arsenicum² was prescribed, from which partial relief

was obtained; but after the medicine had been discontinued the improvement ceased. Some two weeks after the first prescription the patient returned, and belladonna⁵⁰⁰ was given, as being the best indicated remedy; but arsenicum⁵⁰⁰ was given at the same time, with directions to take it as directed, should no improvement follow the use of the belladonna. A few days afterwards, I met the gentleman upon the street, and he showed me his tongue, which was somewhat better in appearance, and he stated that it also felt better, but remarked that he could probably tell me the cause of the affection. He had been eating tomatoes prepared in different ways, as usual, and did not think of any probable connection of that vegetable with his complaint; but as an acquaintance of his was affected in somewhat the same way, and also knew of a number in a certain neighborhood who were similarly affected, and who had also been indulging pretty freely in the use of the tomato as an article of diet, but had never before been affected in the same way, he suggested the tomato as the probable cause of his trouble, and stated that he had acted upon the assumption and that he had consequently experienced relief. To-day I saw him again and his tongue is greatly improved, but the large papillæ are still swollen, but not so red as before.

Upon the presumption that the tomato was the cause of the affection in these cases, the question arises, inasmuch as like results had never before followed their use by the parties affected: Was the affection the product of the vegetable in its ordinary state, and, consequently, did it merely act as an exciting cause, in an existing pre-disposing condition of the organism in these cases, or was the effect due to some change in the tomato produced by atmospheric or telluric influences? I cannot recall any thorough proving of the Solanum Lycopersicon, if there have been any instituted by our school, and the only reference by allopathic writers which I now call to mind, is by Stanislas Martin in a French journal, in which he extols an infusion of the leaves of the tomato plant as a diuretic.

Can any of our readers throw any light upon this subject?

C.

BURT'S CHARACTERISTIC MATERIA MEDICA

For anything which throws a single ray of light over the dark and devious path of the Materia Medica we are always truly grateful; and it is with this feeling of thankfulness that we have run over, as carefully as the pressure upon our time permitted, this second edition of the work the title of which is the caption of this article.

Whoever has undertaken the development and classification of the Homœopathic Materia Medica, can bear testimony to the herculean task which was before him, and, if afflicted in any marked degree with our modesty, to the unsatisfactory manner in which his labors concluded. Still progress is continually being made, we are really moving, and, all things considered, at no laggard's pace, in the direction of planting our Materia Medica upon the immovable rock of scientific precision. Many schemes have been devised for the classification of the various remedies composing our Materia Medica, all of them very nearly allied in their main features, and we doubt not that in due time a system will be elaborated which will present this department of medical science in its most attractive and most practical shape for both student and practitioner. The scheme of Dr. Burt presents the Materia Medica in very much the manner which accords with our own views on this subject; and we have for years been quietly laboring in the same direction. That drugs when introduced into the organism have some special initiatory point of action, and manifest a decided affinity for certain tissues, in general, and, in many cases, for some organs in particular, is a universally admitted fact, for it is founded upon universal observation; and hence there is not only the greater propriety in arranging the Materia Medica with reference to this fact, but in such arrangement this study will be greatly facilitated and the application of remedies in cases of disease will be rendered far more satisfactory and efficient.

We therefore most heartily welcome the author of the volume before us to this most interesting and most promising work, and doubt not that his well known ability and energy will be productive of valuable results. A portion of the dedication is evidently a "characteristic" gush. We have now the great law of similia, the foundation of therapeutical science, firmly, and for all time, laid by the illustrous Hahnemann When the facts of initial and affinitive action of each remedy in the Materia Medica are clearly understood, when all of our provings are presented with the dose in which they were instituted, and when the chemical properties of drugs, upon which all medicinal action depends, shall be recognized in connection with such action, then will we be in possession of a pure and reliable Materia Medica.

C. CROPPER.

Surgery.

TERTIARY SYPHILIS.

Caries of the bones of the Head,—Ulcers in Clavicular and Tibial region.—Treated successfully by Arsenicum, subsequent death from Carditis.—Mrs. V., aged 47 years, of American parentage, was two years since the victim of severe pain and swelling in the limbs, pronounced by the attending physician to be inflammatory rheumatism. A few months thereafter she accidentally injured the crown of her head, which resulted in periostitis, and subsequent caries of the external table of the skull.

The case was presented to Prof. S. R. Beckwith, M. D., for examination and treatment, last winter. Soon after she was taken as a clinic before the class of the Pulte Medical College, and subjected to a surgical operation, which consisted in the complete removal of the diseased portions of bone. Not long after, an ulcer of large size made its appearance in the right clavicular region. Here ulceration progressed with such obstinacy as to excite grave apprehensions that the right sub-clavian artery might become involved, and death from hemorrhage ensue. Subsequently another large ulcer presented in the integuments over the anterior upper-third of the right tibia.

The symptoms most marked were, rapidity of decomposition of the tissues; ulcer characterized by severe burning pains and fetid ichor; sunken, sallow countenance and great emaciation.

On the 7th of March, Prof. B. generously gave the patient into my charge. Upon examination of the case and consultation with him, it was decided to continue arsenicum, the remedy which she was then taking. This treatment was pursued until July, commencing with the lower and going gradually to the higher attenuations. Externally I applied calendula lotion. The ulcers would at times assume a peculiar bluish-red or livid appearance, which a single dose of lachesis would immediately remove. Under this medication the ulcers of the cranial and clavicular regions entirely healed, and the enormous enlargement and severe burning pain of the right limb slowly but surely disappeared.

During the healing process of the tibial ulcer, which was large and deep, a large spicula of bone was evolved and two small ulcers broke out about one inch beneath. From this time we bandaged the entire limb between the toes and the knee every day or two until these ulcers were nearly healed.

On the 1st of Aug., she was so far improved that she dismissed her servant and assumed her household labors. She was happy in the realization of the fact that she could again do her own work and walk about as usual. Improvement continued, notwithstanding the amount of exercise she took, until the cicatrix was nearly complete and we were about to dismiss the patient cured.

At this point she took a cold. During the following night she was present at the confinement of a lady friend, when upon receiving a smell of *fresh blood* she was seized with vomiting together with symptoms of violent *carditis*. This latter disease obstinately resisted all treatment for ten days, when death supervened. Up to the hour of taking cold, she had not had an unfavorable symptom for weeks.

A post-mortem revealed an inflammation of the muscular structure of the heart and the endo-cardium—the presence of fibrinous clots—a cartilaginous condition of the semi-lunar valve, a granulated liver and a congestion of the small intestines and ovaries with inflammation of the uterus.

Nov-2



Now in view of these facts we would extol the virtues of arsenicum album as a remedy in this form of syphilis.

O. W. Lounsbury,

Resident Physician of Homeopathic Free Dispensary.

THE NEW FRENCH METHOD OF DRESSING WOUNDS BY COTTON WADDING.

A new method of dressing wounds, at present attaining great popularity amongst French surgeons, is that which is known as the "pansement ouate'" of M. Alphonse Guerin, of the Hotel Dieu. It consists in the use of large quantities of cotton-wadding, somewhat after the manner of treating extensive burns by the same material.

The advantages contended for by the advocates of the "pansement ouate'" are—

- 1. Avoidance of the action of the air, which irritates not only by its physical properties, but also by reason of the minute organized bodies which it holds in suspension.
- 2. A compression, firm, elastic and sustained, which moderates the afflux of the blood, and produces rigorous immobility of the parts, both in themselves powerful antiphlogistic agents in the treatment of wounds.
 - 3. Remarkable diminution and frequently total absence of pain.
 - 4. Constant uniform temperature of the parts, also an important agent in the treatment of wounds.
 - 5. The ease with which it is applied, and the avoidance of the evil consequences of dressing the wound daily or every two days.
 - 6. The protection afforded locally, thus facilitating the transport of the sick and their dissmination in crowded hospitals.

Lastly. The statistics of M. Guerin show a very marked diminution in the mortality of his large operations since his adoption of this method. Thus, during the troubles in Paris, when his wards were crowded with wounded men, under the worst conditions, nearly all his large operations were fatal; but after its employment he had nineteen successful cases out of thirty-four large operations.—London Lancet.

[Since the above report was written in April last, we learn from Dr. D. H. Beckwith, that most of the hospitals he visited in Europe were using the wadding in all large wounds. It was first brought into use by Dr. Guerin during the Franco-Prussian war. In cases that he had not time to dress, he ordered the wound covered with cotton; and in one case of a lacerated wound, it was not dressed for several days, when the wadding was removed and the wound found in a remarkable good condition, and from that circumstance grew its use. We freely endorse its use and believe it will save the frequent dressings given to wounds. S. R. B.]

NEW TREATMENT OF VENEREAL DISEASES AND OF ULCERATIVE SYPHILITIC AFFECTIONS BY IODOFORM.

The following are the author's conclusions:—

"1st. That iodoform is a therapeutic agent producing more certainly and more promptly than all the others ordinarily employed the cicatrization of ulcerative syphilides in general, under whatever form they present themselves.

"2d. That in the treatment of soft chancre, iodoform is in some sort a specific by the promptness with which it produces cicatriz.ition without pain.

"3d. That in the treatment of simple or virulent buboes (non-syphilitic), iodoform can be employed in the form of an oint-ment, as a resolvent, during the early stage, with more success than the blister and tincture of iodine; during the period which succeeds to the opening of the bubo, no other medicament can be compared with it for the rapidity with which it brings about the cure.

"4th. In all the preceding cases, when the suppuration is abundant, it is preferable to commence the treatment by the solution of iodoform in glycerine and alcohol; iodoform in powder ought to be employed in the second place.

"5th. Iodoform acts not only as a topical agent, but still further as a local anæsthetic. The rapid cicatrization which takes place is due: 1st, to the simplicity of the dressing, which does not irritate the diseased parts; 2d, to the absorption of the secretions by the iodoform powder; 3d, to the antiseptic properties of the medicament, above all, when it is dissolved in alcohol and glycerine; 4th, to the presence of iodine, which acts favorably on all venereal ulcerations in general.

"6th. Iodoform appears to us to be completely incapable of arresting the progress of phagedænism.

"7th. The employment of iodoform in cases of syphilitic affections should never dispense with internal treatment."—From the French of Dr. A. A. IZARD.

CLEANSING OF WOUNDS.

At a meeting of the Clinical Society on January 10th, Mr. Callender brought before the notice of the members the arrangement adopted in his wards at St. Bartholomew's for the use of camelhair brushes for the cleansing of wounds. He pointed out the importance of gentleness in their dressing, and stated that, by using the brushes, the cleansing of a wound was no longer in any instance a painful process. The chief object, however, of the plan recommended, was to do away with the employment of sponges and other materials commonly used for cleansing wounds, and which some surgeons believe to be a frequent cause of the passage of infectious material from one patient to another. During nearly two years, of 148 patients operated on, excluding hernia operations, in the wards, only four had died.—London Lancet.

Phstetrics.

UTERINE DISEASES.

The wide-spread prevalence of uterine diseases justly claims the most serious attention of physicians. The number of really healthy women in any community—women who are able to perform the natural duties devolving upon them as wives and mothers—has come to be vastly in the minority. Indeed, it is probably not an over-estimate, that there is scarcely one in a hundred but, sooner or later, by reason of sexual disorders, suffer physical, mental and moral miseries. Silently, year after year, they struggle, endure, fade and die. Still the tide swells, in spite of the most intelligent efforts of gynæcologists to arrest its progress.

Many eminent physicians in all countries have made this subject a specialty. All manner of mechanical devices have been recommended, instruments without number invented, and a great variety of forms of treatment given to relieve and cure; yet these diseases are more common to-day than twenty years ago. Is it not time that the profession gave more attention to the causes, with a view to prevent, rather than mitigate? It is well for us to remember that a broken dish, though ever so nicely mended, is never so good as one unbroken.

Medical men are divided into two well-defined parties with respect to uterine pathology. One class believes the uterus to possess very little sympathetic influence; that disease of that organ is generally the result of derangement of other vital organs. They believe that actual lesion of the uterus does not depend upon the organ itself, and that local treatment is not only unnecessary, but positively injurious; that the remedy consists in restoring the general equilibrium of the system.

The other party contends that when the uterus is positively

diseased, it exercises a deleterious influence on the entire body; that the spinal and nervous systems are particularly affected, thus rendering all the organs in the body liable to disease through sympathy.

Even this party is again divided in their pathology, also in their treatment: one claiming that a diseased uterus causes other troubles, only when in a state of actual ulceration; the other, that inflammation and ulceration are of slight importance, and caused by some displacement. The former are in the habit of resorting to the use of the speculum incessantly. If the patient complains of back-ache, the speculum and heroic treatment is the remedy. If she has head-ache, stomach-ache or corns, the everlasting speculum is the medium of cure. If a history of the speculum could be faithfully recorded, together with the suffering and torture women have endured through its use, I verily believe it would cause every honest physician to blush with shame, and almost wish the instrument had remained one of the "lost arts."

Practitioners who make a hobby of displacement are continually supporting the diseased and relaxed organ, by all manner of pessaries, some of which betray the most lamentable ignorance of anatomy and physiology, being instruments of torture worthy of being classed with the old Romish inquisition. It is surprising that these diverse opinions are held by gynæcologists fo equal eminence.

I believe there are individual cases corresponding to the diagnosis and treatment of each class, and we should not hamper our judgments by prejudice in favor of one or the other, but base our views on patient, moderate and judicious investigations of each case. Prejudice often forms an invulnerable barrier against the acquisition of truth. Outsiders say, with some truth, that this vice is the besetting sin of the profession, from which neither learned nor unlearned are exempt.

Among the principal predisposing causes of uterine disease, incurred by disregard of the laws of health, are, want of pure air and intelligent systematic exercise.

The lack of proper attention to these two essential hygienic wants will in every instance, sooner or later, deteriorate the

blood, and enfeeble the muscular and nervous systems. Our neglect in availing ourselves of pure air is simply appalling, and of itself a sufficient answer, why a majority of all the women we meet, are, at middle age, sallow, stoop-shouldered, hollow-chested and broken down, when they should be in their prime. In building a house, how few take into consideration its atmospheric wants! Consequently, women, who are necessarily confined to their homes a large part of the time, suffer with stupor and headache, until the nervous system is broken down, and uterine weakness follows as a sequel of general debility.

I think we do not sufficiently insist on our lady patients' giving attention to recreation. A majority stay at home much too closely. It is this ever-wearying round of domestic duties, that makes them grow old so fast. They breathe the same air, eat the same kinds of food, hear the same sounds, see the same faces, eyes resting on the same objects. They do the same things, go through with the same routine year after year. This always staying at home, always breathing the impure atmosphere of our heated rooms, with little or no recreation,—narrows life down to one continual fret and worry. It is not so much the work, as the worry, that makes the gray hairs come so soon and so fast.

Appropriate exercise is one of the best hygienic agencies. Its continued neglect invariably leads to the most disastrous results. So many women linger out a miserable existence, having no aim in life beyond eating and dressing; become debilitated, and suffer beyond expression with uterine weaknesses: who might by proper training become energetic and happy.

Not long since a country lady called with her daughter—a pale, sallow, emaciated creature. The mother says: "Doctor, what ails my child? She has never worked hard, has never known exposure to cold or dampness, has all her life been an object of care and solicitude; yet she suffers fearfully from menstrual troubles." I said to her: "Madam, with all your care and attention, I fear you have neglected to require of her sufficient physical exercise, which is a very necessary part of a delicate child's training."—"Oh! no, doctor," she replied, "I assure you he has had plenty of that. She has taken physic almost every

week since she was a little child. We have given her a wonderful sight of pills to purify her blood and strengthen her."

There is a great deal too much of this kind of "physical education" among women, which tends to increase and perpetuate weaknesses.

Impropriety in dress is largely conducive to and is often not merely a predisposing, but an actual exciting cause, "Take * * thought wherewithal ye shall be clothed," is an injunction more universally obeyed than many others emanating from the same divine source. When Christian women give up the world and its vanities, they generally except dress, and consider it no dishonor to spend more time in arranging toilets than in saying prayers. The dishonor consists in the fact of so little regard being paid to the appropriateness or healthfulness of our dress. I believe it quite possible to care for beauty and fitness at the same time.

If physicians would give this matter more attention, and teach their suffering patients the great importance of a healthy style of dress, half the uterine diseases cursing woman's life would disappear.

Women persist in-

"Dressing to kill, and kill to dress,
In uncomfort and distress,
Fashion bids all woman-kind
Follow her with heart and mind;
And, with the exceptions few,
They yield a service more than true."

We should teach our patients that all clothing which in any way obstructs the free action of the heart and lungs or prevents the easy play of any or all muscles, defeats the first essential requisite in dress, violates a general law of propriety, and invariably leads to weakness of the uterine organs.

The controversy in the minds of woman between a sensible, healthy dress and their love of the beautiful, seems hard to reconcile. The only thing to be done is for physicians to demonstrate that rheumatism, neuralgia, catarrh and consumption, lurk in the folds of the scant drapery; that disease and death follow close after full dress. We should impress on the minds of women that no dress can be strictly beautiful that foretells sickness, and that weaknesses resulting from willful improprieties in dress

are a punishment for violated law. When women learn and comprehend that, for a large part of the dreadful diseases from which they suffer, they are *personally* responsible, we may look for a reform, and a consequent decrease in the fearfully large mortality list.

Imprudence in eating and bad diet might, properly be classed among the predisposing causes of female troubles. It is, perhaps not a rash statement, which Leigh Hunt made in his life of Lord Byron, when he says, "If some demi-god would regulate for mankind what they should eat and drink, he would put an end, at one stroke, to half the ills which the world undergo."

Among the direct causes of uterine disease is imprudence during menstruation. Our daughters are too often allowed to grow up utterly ignorant of sexual physiology. As a consequence, suffering of some kind during this period is well nigh universal. How loving mothers can neglect to instruct children on these important subjects passes my comprehension.

Another influence connected with the subject is the practice of putting on tight bandages after parturition, which compression forces the organ backward into the hollow of the sacrum. Nature should secure uterine contraction without mechanical means. The tightest bandage cannot force the over-distended muscles, skin and tissue back to their original condition. Many a woman suffers a lifetime with prolapsus, caused by this senseless effort to preserve the comeliness of the form.

There is another prolific cause of uterine disease, which I do not feel justified in omitting to mention. Of all the devices of human ingenuity to turn cature aside from her law of cause and effect, in limiting the increase of the race, there is nothing playing such general havoc with woman's health, in this country, as the continued use of cold water as a preventive of conception. The blighting effects of forcibly ejecting cold water in the face of nature, in her most excited and exalted moods, needs no discussion with medical men. Its constant use eventually deadens the generative organs, and, as a consequence, many, too many women, are, to all intents and purposes, unsexed; without either inclination or power to exert upon society or individuals that refining influence which is her natural inheritance

by virtue of her sex. I believe this universal practice to be a great disturbing element in social life, causing domestic incompatibilities, from which springs free love and which flood our courts with petitions for divorce. Its most serious aspect to the profession is the long train of diseases and suffering which appeals to them for relief.

There is still another great cause of uterine disease, the contemplation of which causes me to blush in shame for my sex. The subject of abortion is disagreeable and shocking in all its aspects; but from its exceeding importance no physician should pass it by in silence. The strongest constitutions cannot practice it without bringing upon themselves utter ruin, to say nothing of the wear and and tear of conscience. I do not believe the woman lives, who has produced abortion, and ever saw a perfectly well day after its accomplishment. Indeed, death too often follows effects of this kind. The fact, (well enough known,) that the various preparations advertised to produce the effect always do harm, ought to be sufficient to prevent women from committing so unnatural a crime.

It is high time all respectable physicians and all true men and women take a decided stand against this frequent, but most wicked practice. The subject in all its bearings is the most sorrowful that can be imagined, and the one great sin that blackens the purity of American motherhood. There is no more beautiful or secred sentiment than the deep, abiding, unchangeble affection the Creator has implanted in our hearts for our helpless little children. When mothers so forget their duty to God's humanity as to outrage this holiest of love, this most beautiful of maternal tenderness, what is their left of holiness, of love, of beauty to trample underfoot?

Murders committed on persons who are strong and able to cry aloud and defend themselves, strike us as something terrible; but to me it is inconceivably more horrid, more wicked, to kill the innocent sweet babe, nestling so confidingly near its mother's heart, so helpless and unresisting.

We are shocked as we peruse the daily papers to read of murders every day committed, and their details given to the public; but could the curtain be lifted for an instant, and the spectacle of secret, sure, unresisted and unpunished murder be opened up before us; murder by gentle women who call themselves Christians—God's people; murder upon helpless, speechless, innocent children; oh, Heaven save us from such a vision!

Well may every mother who has escaped this fashionable temptation to sin bless God, that, for the rest of her life, she has no vision of a pale, murdered, dead child to haunt her waking hours or disturb her dreams by night. What can we plead in extenuation? It is not because of poverty or shame or inability to care for the dear little ones; for the crime is more prevalent among the rich than among the poor. It is, alas! that I am compelled to say it, because our women are so occupied with worldly matters, fashionable dress and fashionable living, they have not the time to devote to the rearing and education of children.

What short sighted ideas of happiness, to be willing to give up the society and love of affectionate children for the sake of the party, theater, gay company and excitement! A smile, a kiss and 'dear mamma," from the rosy lips of our innocent babes ought to make us happier than all the world besides.

Ah, there comes retribution in the history of every wife who wilfully makes this exchange! When disease, induced by violating nature's law, makes her prematurely old; when beauty is gone;—how her soul longs then for the loving attention of children, and how often her lonely heart aches for the presence of "what might have been!" A recent writer says: Pagan women kill their children, because they would save them a life of hardship or because they are too poor to raise them; but it is reserved for refined Christian women to kill their babes "because they are such a bother."

Finally, uterine disease always leads to sadness and despondency. The sufferers are generally peevish, irritable and impatient. The constant pain hardens the heart and narrows the sympathies. They rarely enjoy high spiritual life, and fail to see beauty anywhere. The world is a vale of tears, all goodness is distrusted, and all plans of the Creator at cross purposes. Oh, if woman could only cease to suffer with these diseases, the millenium for the sex would be near!

Who can describe the power for good of a thoroughly healthy

intelligent woman? The very emblem of holiness is perfect health. The woman who brings the power of a disciplined intellect to the ordering of her household; who makes her home the center of light, beauty and intelligence, drawing the weary and homeless within its radiance; she, who every morning sends forth into the world a brave, happy man; who every day gathers into her rejoicing arms happy, healthy and beautiful children; who from the exceeding riches of her health and strength gives. yet is not impoverished;—is a saintly woman, and a faint picture of what I believe a majority of women would be, if trained and educated so as to avoid the long list of diseases which are sapping the life of American women. Ada L. Adams, M. D. Springfield, O.

PATHOLOGICAL CONDITIONS AND INDICATIONS FOR TREATMENT IN CASES OF IRREGULAR ACTIONS OF THE UTERUS DURING LABOR.

It is extremely doubtful if the uterus ever acts with such undue degree of force as to constitute a pathological condition. Therefore precipitate labors should not be regarded as involving any danger; for, while the expulsive powers are good, the tissues may dilate and soften very rapidly, and the only accident so often found in this class of cases is avoided. Laceration of the perineum is less liable to take place in rapid natural labor than in protracted and difficult labors, when ergot, chloroform and instruments are brought into requisition.

These cases do not require bleeding as formerly taught, nor hypodermic injections of chloral, morphine or atropine; but careful watching, and due caution on the part of the patient not to strain too much, but to let the pains take their own course.

Too weak pains rarely need any but an expectant course of treatment; nature will complete labor herself if not interfered with.

Dr. Lusk says that it is questionable whether the so-called spasmodic strictures of the uterus are due to the isolated actions of special circular bands of muscular fibers, at the points where the strictures occur, or to the insufficient action of other parts of the uterus. He distinguishes between the pains of (and which are always present in) weak and insufficient action in prolonged labor, and pain due to true uterine contraction. The physiological action of the uterus, aided by the bag of waters usually present, aid greatly in dilating the os.

The physiological action of the uterus usually commences several days before active labor sets in, and consists in establishing a hyperæmic condition of the tissues around the os, and an infiltration of serum, separating the fibers one from another, causing an increased secretion of mucus, by means of which the parts are lubricated and rendered more pliable and yielding. At times these changes go on rapidly, and at other times more slowly. When dilation is delayed, bell., on account of its peculiar action upon all sphincture or circular muscular fibers, will be a most valuable agent. If the os is dilated or dilatable with ineffectual uterine contractions, secale or pulsatilla will stimulate the nerves of organic life which supply the body of the uterus, and induce renewed efforts on the part of that organ.

If the patient has become exhausted and it is desirable that she should have rest to recuperate her nervous energies, morph. sulph., one-sixth to one-fourth of a grain, will secure that result, and another and very desirable one; viz., relaxation of the soft parts, will immediately succeed. The opiate will act primarily as an anodyne and allay irritability and induce sleep. Its secondary effect, relaxation, will immediately follow, the os will dilate more readily, and the increased force secured by repose will speedily complete the labor. I have resorted to this course myself many times and always with the most gratifying results.

Usually, however, when the os is found soft and dilatable, the uterine pains being regular and reinforced by the action of the voluntary and auxillary muscles, labor will be accomplished without other aid. Another condition sometimes classed as an irregular action of the uterus, occurs in breech or pelvic presentations; after the body has been delivered, the os sometimes contracts around the neck, following the irregularities of the child, grasping it so firmly that not unfrequently death ensues. This condition is not due to any spasm of any special class of muscular fibers; but

to a more complete retraction of the fibers at that point following the constriction between the shoulders and the head.

The indications in this case would be to support the body of the child and to excite uterine contractions by kneading, grasping and frictions, until the pains overcome the resistance, and the head will be expelled with little difficulty.

In hour-glass contractions give bell. and wait; hemorrhage in such cases is exceedingly rare; in a very short time relaxation will take place, and the placenta will be expelled.

Hemorrhage after delivery is best met by secale or ustillago madis, and apply cold water to the feet; uterine contractions will occur almost instantly. Sustain the patient by the liberal use of brandy and cold water or ice. There will never be any necessity for tampons, cold water injections, or ice in the solid form, or any other of the harsh and unnatural means often resorted to.

OWENS.

RUPTURE OF THE UTERUS.

Dr. John S. Parry reports in the American Journal of Obstetrics, for August, 1873, three cases of this grave accident, and at the close of the report thus summarizes some legitimate conclusions: "There are several points presented for consideration by these cases which have been related. In the first, through an error, the patient was allowed to perish without any attempt being made to effect a delivery. Undoubtedly the accident might have been prevented by a timely resort to cranitomy or the Cæsarean section, for no one could hope to deliver a living child through a conjugate of 2 1-4 inches. But this not having been done, the recedence of the head, combined with the profound collapse and hemorrhage, indicated the grave character of the accident,—and, looking back upon the case from our present standpoint, the indication is sufficiently clear. This was, to perform gastrotomy, and

removing the fœtus, secundines and clots of blood from the abdominal cavity, to have afforded the unhappy patient the only chance there was for her recovery. Dr. Trask, in his admirable monograph upon the rupture of the uterus, (Amer. Med. Jour. of Sciences, Jan. and April, 1848, and July, 1856,) has, we think, shown conclusively that this would have been the proper method of treatment under the circumstances. Certainly no one would advocate at this day the treatment of Hunter and Denman, that these cases should be abandoned to nature; but a larger number might be found who would attempt to relieve by introducing the hand, passing it through the rent in the uterus, seizing the feet and attempting to extract. However successful this may be in pelves which are ample in size, the procedure would certainly add much to the dangers of the case when undertaken in a pelvis through which there is no hope of extracting an unmutilated feetus, and in which the dangers of cranitomy are so great as to make it a terrible grave operation in uncomplicated cases.

In all of these patients the cause of rupture was the same,—disproportion between the size of the child's head and the pelvic brim. Trask found this condition to be present in nearly one-fourth of all the cases which he has analyzed.

All the histories here related illustrate in a marked degree the influence of delay in delivery, or rather what Sir James Y. Simpson (Obstet. Works, 8vo, Phila.) called protraction of the labor, in producing this accident. In the first patient, operative interference was clearly indicated, and should have been commenced as soon as the os uteri was dilated or dilatable. The patient lost nearly three days in fruitless efforts to relieve herself.

The history of the second patient is nearly analogous, and had she timely assistance the terrible accident which so nearly destroyed her life might have been prevented, and her attendants might have been spared the dreadful alternative of plunging the perforator into the head of the living child. The third history is equally instructive, and as forcibly illustrates the dangers of delay in assisting delivery. It is true that the whole duration of labor was not great, being but little over twenty-four hours; but the bag of waters ruptured early, and from eleven in the night until between five and seven o'clock the next morning the uterus continued to act,

though not very violently, without materially advancing the labor. At this time the overworked organ could bear the strain no longer, and gave way. No better illustration of the daugers due to protraction of labor could be detailed; and it has forcibly recalled to the writer that, a short time since, he publicly stated in this hall that if the second stage of labor should continue actively for more than two hours without any advance of the head, the propriety of assisting the patient should be considered.

No one is more willing than the writer to admit that "meddlesome midwifery is bad." Year after year we have heard this maxim uttered in lecture and debate. We are told that in the vast majority of occipito-posterior positions the head will descend, rotate and be delivered with the occiput under the pubic arch. tience is the watchword of accouchers in the management of these positions, and they are told to sit supinely by their suffering patients, watching the throes of labor until the child's head has descended, rotated and been born. That this will occur in a large majority of instances no man of any experience can have a shadow of doubt; but there are cases in which the delivery of a living child without injury to either the mother or her offspring is perfeetly practicable, and in which, if left to nature, the result may be fatal to one or both. Judicious interference does not jeopardize either-nay, more: the skilful operator had better err in resorting to the forceps or version early than in postponing either operation too long. We do not hesitate to repeat, that we adhere to a rule adopted several years since, to gravely consider the propriety of interfering when the second stage of labor has continued two hours without any advance. Thus the fearful accident of uterine rupture is prevented—not treated—and the medical attendant avoids the disagreeable task of passing his hand through the laceration into the abdominal cavity to seize the child and drag it through the contracting wound, or of opening the belly and extracting it through the incision. Thus he becomes not the substitute for, but the handmaid and assistant of, nature. As such the intelligent physician goes to the bedside of his suffering patient, in the sore hour of her travail, with a full knowledge of the extent of his resources. Conscious of his powers and strong in their possession, he anticipates and prevents danger. "Meddlesome midwifery is bad!" Delay and timidity in operating are bad!

INTERSTITIAL TUMORS OF THE UTERUS.

In a very valuable article on Iterstitial Uterine Fibroma (Gaz. Med., Paris,) Dr. Abeille alludes to the mistakes in diagnosis which are constantly being made, as regards interstitial tumors of the uterus, from the neglect on the part of the attending physicians to make their examinations during menstruation. It is during this period only that these tumors can be readily detected, since then nature in her effort to expel the tumor, pushes it downwards towards the cervex uteri, causing an unusual dilatation of that region. These tumors are by far the most dangerous of all uterine tumors, since they give rise to severe metrorrhagia and, owing to their peculiar position, are very easily overlooked in examinations of the uterus.

Chemistry and Pharmacy.

VITAL AND CHEMICAL REACTIONS.

Chemistry is the offspring of Alchemy. Its birth was a process of evolution, in which material changes were stripped of their mysteriousness, and laws were developed and defined. Superstition and tradition yielded to the influence of facts which were indisputable, and the child grew into manhood while the parent gradually faded away into the realm of sorcery and witchcraft. The evolution of the science of Chemistry, or rather the discovery of the laws under which material changes took place, advanced rapidly until the foundations of the present science were firmly established. But upon the borders of the inorganie kingdom its development was stayed. Wherever Life had woven matter into rounded form, Chemistry stumbled, and even after the vital agency left its work, dead, Chemistry laid Nov-3

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hold of its handiwork with a tender touch—gently, as if to unravel any more mystery were desecration of some sacred temple.

A remarkable change has come over the spirit of philosophy in later years. Speculation has entered the heart, as it were, of every science. Theories, based upon extraordinary hypotheses, and sustained by similar agencies, have pushed themselves into high places, and reach out into the confines of human thought. Tradition, superstition, and even all theism, staggering under the blows dealt the human interpretation of religion by science, wraps itself in a cloak large enough for all possibilities. Therefore, without an enemy in the world to curb its spirit, the modern speculative philosophy dares every flight, and offers a solution for profound problems.

Many of these theories will yet stand out in ragged relief, to be laughed at. This may be the fate of that theory of the remote age of the world, when it is found that ocean sediment would never have formed into carbonate of lime for a million years and then suddenly switched off into silicious sandstone! And without time unmeasured, what of evolution, and a few kindred theories? And when the ratio of the increase of population enters as a factor in the discussion of the origin of man, where will we find the "lost links" to supply the deficiency of monkey-men in the history of the human race?

With the growth of freedom, and we may almost say recklessness, in speculative thought, there has grown up a strong belief in the unity of vital and chemical reactions—that significant relations existed between the two, which were parallel to and not more extraordinary than the common inorganic manifestations of chemical affinities.

The development of these "materialistic" views of intricate organization has kept even pace with the success obtained by chemists in the synthetic production of substance formerly the offspring of living matter only. During the last few years very great progress has been made in this direction, and a well-known chemist eloquently refers to the laboratory production of the essences of spiræa, wintergreen and the new mown hay as chemical triumphs of peculiar significance. The manufacture

of crystalizable urea from cyanate of ammonia and the change of cellulose into British gum and sugar, mark uncertain epochs in the creative age of chemic art. But far more dazzling to an imaginative mind appears first the protoplasmic theory of Huxley, who moulds the "divine image" from a combination of water carbonic acid and ammonia. Following this comes the announcement that BONE has been formed, with the aid of electricity.* With little more than a conservative view of recent operations, it appears as though the chemist would yet build organic engines to order, and giant mastodons of shape and temper to suit the imagination of a Gueber.

It is not an easy task to point out the misconceptions in these advanced views. One source of error in supposing the elementary production of urea and certain "by-products of the laboratory,"—a source of error we have not seen referred to before—is in the use of a certain radicle, a compound, whose basic qualities could not be prejudged "according to the strictest rules of Baconian philosophy." In other words, the elementary production of a prime agent in such organization, ammonia, awaits accomplishment. In the XVth Century, the sun was gold solid, sunlight was gold liquid, and a ray having been imprisoned under some Theban caryatide, the learned Archdeacon of Notre Dame foretold the speedy triumph of alchemy and the condensation of sunshine into legal tender, et fils, moonshine, into green — backs. Some errors crept into their calculations.

Sterling has so completely answered the eloquent lecture of Huxley on Protoplasm, that it is unnecessary to refer to it here.

But the production of bony tissue by means of electricity presents a new factor.

It is not a difficult task to name an unknown power or force, especially one susceptible of so many modifications, and capable of so many blind reactions as electricity. Names are abundant so long as dead languages live! But if the ascription of known titles to unknown forces clears away aught of the mystery surrounding organization, then our schoolmaster is not abroad. Nervous force and all the functions of vitality may be due to

^{*}Bennett's Physiology.-A recent publication.

electricity or polarity; but in that case polarity becomes a catchall for the reception of puzzling problems. So far from enlightening the dark recesses of God's laboratory, such universal and sweeping ascriptions of power to single forces only make the dark avenues more mysterious and sublime. Vital force has not only been unexplained, and organized beings not created in the laboratory of the chemist, but the same forces which are exercised in such integration are becoming complex and losing the power of simple definitions.

The vital reactions remain still a deep mystery. The illustrations of chemical agencies simulating them are unexplainable, and the forces expectantly applied turn up with new and strange attributes. Chemistry has done absolutely nothing to lift the curtain from the mystery of life.

EXPERT TESTIMONY.

It is perhaps a self-evident proposition that without experience in chemical manipulation, no man is to be trusted in a toxicological examination; but the converse does not of necessity follow, for many who are experienced and well posted, need the natural tact which is required for a successful outcome in such cases. But while the chemical expert should be that which he often is not, an experienced and naturally careful man, it is no less true that all the witnesses called should be weighed in the balance, and tested according to the same scale of acquirements. Without this point guarded, the competent expert may be held up unjustly to the ridicule of the court and jury.

There are three factors that enter into the examination of any case of poisoning: the symptoms, the post-mortem appearances and the chemical analysis. In some cases the value of one predominates, in others it takes a subordinate *role*, but in none is any one of these alone sufficient to base a positive opinion upon. It is of the utmost importance, therefore, that each of the above

mentioned factors should be carefully considered, and brought to bear one upon the other.

Some notorious examples of the incompetency of medical testimony, and especially as to the improper value placed upon one or more of these points mentioned, exists—among the records we have the Schappe case, where the appearance of the eyes, resembling those of a hawk killed by compound poisoning, was taken by one physician as sufficient proof that Mrs. Steinacke came to her death by similar means. Again, that notwithstanding the lingering nature of the case, prussic acid was the presumed and acknowledged poison! These were points outside of the chemical analysis. It was not so much the fault of the chemical experts, that mistakes and false impressins were made, as the admittance of testimony altogether incompetent, upon certain points having an important bearing upon the case.

Again, in the Mrs. Wharton case, for the supposed poisoning of Eugene Van Vess. The evidence on collateral points was not by any means clear. The symptoms which undoubtedly characterized poisoning by antimony were thought to be present upon too slight grounds, while the proper distinction was not made between symptoms dependent upon diseased condition and the action of strychnia upon the system. The most thorough and conclusive chemical examination could not make headway or dispel the prejudice engendered by such faulty testimony.

Again, the following case in our own experience:

A woman burned with coal oil at 8 o'clock P. M. Slight injury upon the lower limbs and fingers; not enough of themselves to create any disturbance of moment; no other injury or effect of pain found; stomach moderately full of undigested food. These appearances were found upon a post-mortem examination. The symptoms before death were, a fluttering pulse, great excitement, etc., for which one-fifth or one-fourth gr. of morphine and bro-mide of potasium were given. She took two doses; after which or during the time intervening, there was occasional slight stertor, but stertor was not continuous, for she would arouse and then was slightly wandering. At times her mind seemed clear. All this time, however, symptoms of excitement, with exhaustion, the same as appears from and after a nervous shock, were

manifested by the pulse, respiration, etc. Death ensued about 10 A. M., next day.

The stomach and contents were analysed, 1-22 gr. of morphia Now in this case, the physician was accused of giving too much morphine, and it was supposed by her friends that death ensued in consequence of opium poisoning. This case, analyzed, shows that the symptoms alone look to opium poison, although not conclusive. Then the morphine found in the stomach would tend strongly to confirm, but the post-mortem, although unimportant in other respects, revealed the fact that the stomach did not act, the food was entirely undigested, that which was taken before 8 o'clock, the evening before, and immediately before the accident with the lamp. If the stomach was in such a condition, no absorption could take place, at least not of any consequence, and the morphine taken would not be readily absorbed. This fact had something, nay, much to do with the solution of the case, and the result of the post-mortem was of great importance in forming the opinion that death took place not through morphine, but by reason of a shock and exhaustion; in fact, that not enough anodyne had been given, or at least absorbed.

So we find the toxicological expert is beset with difficulties outside of his own knowledge, and be he ever so competent he is drawn into the current that sets against incompetency shown in any of the testimony, and the legal and judicial management of the case. But it is without doubt that so-called "experts" differ-just as we find physicians and others-having different views upon the same subjects, as in the case of educated physicians we expect slight variations, accompanied with perfect agreements as to the main points. So with experts, the differences which will exist are nearly always greatly magnified, while the points of agreement are almost wholly overlooked. several reasons for this: 1st. The jury, however intelligent, are not scientific, and although with native or acquired keenness they may be aware of the discrepancies in the testimony, they have not the special knowledge that will cause them to reconcile such discrepancies, and the case becomes hopelessly entangled, until to all appearances the witnesses are diametrically opposed the one to the other. 2d. Those are called to testify who ought

not to be permitted to enter the witness stand. Some who are so ignorant, that among their fellows their opinions amount to nothing, but who are legally as good as the most learned and Can we wonder that such being admitted to testify, and the jury believing them, erroneous views are taken upon points involved? the false light thus guiding men to wrong conclusions, what can we trust to the evidence of physicians or chemists who ignore the fallacies of the tests in analysis of arsenic-strychnine-morphine-dependent on the presence of organic matter, want of concentration of the fluid, and other similar reasons? and yet such are admitted, men who have not studied the matter sufficiently to recognize the principles upon which the test acts, and who have never performed any experiment themselves and are wholly ignorant; one whose judgment, based upon similar data, we would not take upon any subject, however simple.—Indiana Jour. of Med.

A RATHER astonishing bit of chemical news appears in a Paris letter to the Turf, Field and Farm. It describes a discovery related at a secret session of the Paris Academy of Science on the 13th of last June. The discovery is that hydrogen, hitherto considered an element, is in reality a combination of two elements. one of which is nine times as light as hydrogen, and twenty-five times as light as ordinary illuminating gas. The new element is called abaron, meaning weightless. It will not burn, extinguishes flame, is without odor, taste or color. The discoverer is M. Lebarre, a well-known French chemist, and his dicovery was not an accident, but the result of a series of successful experiments. The influence of the discovery, should it be substantiated, upon ballooning, will be manifest. The tremendous lifting power of abaron will render possible the employment of metallic balloons, capable of resisting strains and shock, and also of preventing the escape of gas by exosmosis.

Proceedings of Societies.

HOMŒOPATHY IN INDIANA.

The semi-annual session of the Institute of Homoeopathy was held in the parlors of the Plymouth Church, Indianapolis, Nov. 12 and 13th.

This meeting was one of living interest and, though not all that was desired, gave an earnest of more vigorous and active life in the Institute. The fraternal sentiment which prevailed was one of the best symptoms manifest. The lack of this element, as is well known by those who have been just far enough off to "look on," has been the sole cause for the, hitherto, semi-moribund condition of this society; and so the presence of it was cheering beyond measure. The attendance was larger than at any previous meeting for years; the papers were of a high order and the discussions following animated.

A most valuable paper by Dr. Funk on the uses of *Myosotis* in treatment of phthisis and neglected pneumonia was read. Its use thus far had been empirical, but truly magical; many cases recovering when supposed to be in confirmed consumption.

Society, by vote, requested the Dr. to fully classify and describe the plant and report to the profession. This drug promises a great deal and should have a wide proving.

Dr, Lucas reported a case of paralysis of entire body in a child two years old; was recovering under use of plumb.

Dr. Hunt reported case of puerpural eclampsia occurring in the eighth month, ante partum, but which returned in double force shortly after expulsion of fœtus; decline most rapid; medication fruitless and patient supposed to be moribund. The mooted expedient of venesection was resorted to and followed by immediate and most happy relief to all concerned. This report was a bombshell; hot and excited declamation was the result; "Homæopathy could never endure such Allopathy," etc.

Dr. E. Beckwith gave an exhaustive and intensely interesting

report of his case of epilepsy with which the profession at large is already—through the columns of the *Investigator* and otherwise—somewhat familiar. He also exhibited the patient to the Institute: 11 years old; sanguine lymphatic temperament, (reminding of pulsatilla,) who had had over 500 spasms and now looked "none the worse for wear." Belladonna, he thought, had influenced the case somewhat, but no other remedy had benefitted the case or even checked the recurrence of the convulsions, except brom. pot.—60 grs. per diem! 'He had searched the M. M. through and through; had received "sure-shots" from twenty-five M. D's.; had tried everything in high and low potency that promised relief, giving from one to six weeks' action to each drug and had finally come to the conclusion that science was out of the question in epilepsy. Patient was now on tarantula 12th-

Dr. Runnels recounted a case for diagnosis: A gentleman 40 yrs. old, teacher, had for many years been subject, at intervals, to violent cerebral congestion. For the last three years he had been free from this trouble, but in lieu had each Summer bloody stools—one to three per day, with or without the fecal discharge, which was normal; appetite and digestion good; constipation and relaxation, the bowel habit for years; never had hemorrhoids and speculum did not show them; palpation revealed deep-seated pain and tenderness just above pubes. During the past Summer the case had been worse than ever before; dejections more profuse and frequent, purulent character, attended with much prostration, but no exaltation of pulse or other symptomatic derangement. He got rapidly well on nux. 30th to 200th with calendulated enemas. Opinion: hemorrhoids of upper rectum.

Dr. Eggert read a lengthy and most valuable paper entitled: "How to study the materia medica; illustrated by analogies of aconite and gelseminum."

Dr. Hoyt had a paper on bapt. tinct., also one on "Ulcers—diagnosis and successful treatment," which was most profitably discussed.

Dr. Haynes read on "Fractures of Radius." He employs plaster of Paris dressing instead of ordinary splints in fractures of forearm; gives acon. 200th and arn. 200th to reduce pulse to normal; then ruta. 6 to favor ossific deposit.

Dr. Fisher on "Potencies and Doses." Began practice with a case of the "two-hundredths," but had found by experience that the entire range of potency, from tincture to the skies, was necessary.

Dr. Compton in the treatment of "pin-worms"—oxyurus vamicularis—had nothing so effective in relieving the intolerable itching occasioned by the parasite as an enema of tepid water containing a few drops of sulphuric ether. He believes it destroys the larvæ and thus becomes a grand adjuvant to the proper internal remedy in the removal of the parasite cachexia.

Dr. Hunt from the Bureau of Obstetrics reported on "Wha to do and what not to do in the lying-in chamber."

Drs. Baer, Bancroft, Beckwith, Carliss, Compton, Carnahan. Davis, Elder, Eggert, Fisher, Hunt, Haynes, Haggart, Hoyt, Lucas, Runnels, Robinson and Waters were appointed to represent the several bureaus at the annual session which will convene in Indianapolis, on the second Wednesday, in May, 1874.

O. S. RUNNELS.

LORAIN AND MEDINA COUNTIES MEDICAL SOCIETIES.

The Homœopathic Medical Societies of Lorain and Medina Counties met in Elyria, on the 9th day of October, 1873.

Members present, Drs. M. P. Hayward, of Oberlin; Sara B. Chase, Brownhelm; C. F. Cushing, C. F. Park and G. F. Peckham, Elyria; and visiting members Drs. Wm. Phillips, of Cleveland; and F. Bond, Vermilion.

Dr. M. P. Hayward was elected President pro tem.

Resolved that the report of Dr. Sara B. Chase of her own case of illness be forwarded to the MEDICAL ADVANCE, of Cin., and the Ohio Medical and Surgical Reporter for publication.

Minutes of last meeting were read and approved.

The following officers were elected for the ensuing year:

Dr. M. P. Hayward, Pres.;

Dr. C. F. Park, Vice-Pres.;

Dr. G. F. Peckham, Sec. and Treas.;

Drs. J. Rust, G. J. Jones and C. F. Cushing, Censors.

On motion, the name of the Society was changed to the Lorain County Hom. Med. Society.

Dr. Cushing presented a report on cholera infantum.

Dr. Chase presented two specimens of tape worm from the same individual expelled by kusso.

Dr. Peckham claimed that emetics were called for in cases of poisoning; overloaded state of the stomach of irritating food; after an injury destroying the powers of digestion whilst the stomach is full; in cases of intermittents of long standing; where there is a perverted state of the secretions of the liver, stomach. etc.

Dr. Hayward thought emetics not admissible except in cases of poisoning.

Dr. Cushing thought they might be.

Dr. Hayward presented a report on the treatment and diet in typhoid fever.

Dr. Phillips presented a paper on the treatment of the eye and ear.

Resolved that our next meeting be held in Oberlin, on the second Thursday of June, 1874.

Resolved that the proceedings of this meeting be forwarded to the Cincinnati Med. Advance and Ohio Med. and Surgical Reporter for publication; adjourned.

G. F. Peckham, Sec.

THE presence of a great amount of dust in the atmosphere is likely to outweigh all advantages that a climate otherwise suitable for consumptives may afford. One of the chief advantages of a sea-voyage for phthisical patients consists in the almost complete exemption it affords them from the injurious effect of dust.

Physics.

THE MODE OF MEASURING THE VELOCITY OF ELECTRICITY.

In order that it may be clearly understood how it is possible to determine the speed of the electric current, we must first make some general remarks.

Whenever a wire connected with an electric machine or galvanic battery is made electric, we see immediately a bright spark on the end of the wire, if it is made to touch the apparatus. A spark will likewise appear on the other end of the wire if it is brought in contact with a second apparatus. In speaking of of these sparks, we will call the first the entrance spark, the second the exit spark.

Now if a wire be stretched from a given point to another point many miles distant, turned upon itself there, and then brought back to the place of starting so that the two ends of the wire will be at the same place, when a current of electricity is passed over this wire, both the entrance and exit sparks are seen apparently at the same time. We know, however, that the two sparks do not shine at the same time, and that the exit spark must appear as much later than the entrance spark as the current of electricity takes in passing the length of the wire. The speed of the current however is so great that it is impossible to detect with the eye that the appearance of the two sparks is not simultaneous. In other words, the current of electricity passes around the wire before the impression made upon the retina by the entrance spark can be removed, and thus we have the two sparks appearing seemingly at the same time.

By a very ingenious and scientific experiment, we are enabled to assist the eyes and to determine the speed of the current.

Every one has often noticed in looking into a mirror, if it is made

to revolve, that the reflected objects appear to move. In determining the speed of electricity we make use of this fact. A small round mirror is made to revolve upon its axis at a certain rate of speed by an arrangement of cog wheels. Before the mirror we bring both ends of the wire, the one held directly above the other. Now when electricity is passed over the wire, the two sparks will appear in the mirror—as in a vertical line. If now the mirror is made to revolve, the relative position of the sparks changes and they appear in an oblique relation.

What is the cause of this?

The entrance spark appearing in reality a little before the exit spark, and the mirror being revolved, it is plain to every one that the exit spark coming later must catch a different point on the surface of the revolving mirror, and consequently be out of the straight line. It is equally plain that the length of the wire over which the current passes, and rate of speed at which the mirror is made to revolve will together determine how far from the straight line the exit spark will be deflected. By this means the speed of electricity has been shown to be sixty thousand miles in a second.

The velocity of light has been proven in the same way. It was formerly supposed, and is now to great extent, that the transmission of light was instantaneous. It was thought that the light of the sun reached our earth at the same time that the sun appeared. We know now, however, that the sun has been shining upon the earth for more than eight minutes before we see the light.

G. SAAL

THE attendant of Mathews, the famous wag, gave him by mistake some ink from a phial instead of the medicine which the doctor had left for him. "Good heavens!" exclaimed the man, "I have given you ink." "Never mind," said Mathews, faintly, "I will swallow a bit of blotting paper."

IN THE last illness of George Coleman, the physician apologized to his patient for being so tardy, saying that he had been called to see a man who had fallen into a well. "Did he kick the bucket?" inquired the patient.



Book Rotices

Transactions British Homoopathic Congress. Henry Turner & Co., London.

This pamphlet contains papers presented at the Leamington meeting, held last September. Several of them are extensive and well-nigh exhaustive investigations of the subjects discussed. They show much more care and research than the papers usually presented at our American meetings. They do not seem hurriedly made up and illy considered. On this account they will bear careful perusal and will be found to have a lasting value and these are facts, we regret to say, that do not apply to much that is offered at our state and national societies.

The first article is by Dr. Wm. Sharp; discusses three questions, The Kind of Action of Drugs: The Action of small Doses: A Law for the Dose. These are important questions and Dr. Sharp with his well-known ability treats them ably and dispassionately. How far the profession will agree with him in the mode in which he has settled them we cannot say. The following is a fair summary of what is embraced in the discussion:

"The rule of similarity of action, as manifested by the symptoms of diseases and of drugs—the law of homœopathy—must be confined to comparatively large doses of drugs.

Taken in this restricted sense—restricted not only to drugs, but to large doses of drugs, and to their action in health—the law or rule, we may venture to say, is irrefragible. It is a natural truth.

But it is a half-truth. This is another reason why it has not met with acceptance. Galileo's telescope consisted of two glasses: one had been looked through a long time by itself, but it was not till the other was found, and the two were placed so that both could be looked through together, that Jupiter's moons were seen.

Hahnemann's half-truth is the *similarity* of the action of large doses to the symptoms of diseases which small doses can cure.

The other half-truth now added is the contrariety of the action of small doses to the action of large doses, and consequently to the action of the diseases they are remedies for.

These two half-truths now put together make the treatment of disease as visible as Galileo's two glasses did Jupiter's moons. Those only who refuse to look through the glasses can fail to see either the one or the other.

A harmony in music is concord, the agreement of one note with another. A harmony in science, according to Lord Bacon, is the adaptation of one part to another. The two parts of this subject, now joined together, make one harmonious whole.

You know that any two colors which, when combined, produce white light are called complementary colors. These two half-truths—the action of large doses and the opposite action of small ones—are the two complementary colors: their juxtaposition makes white light.

Hahnemann's homeopathy, I have said, is a half-truth. It is my privilege to-day to announce to you the other half-truth. I presume to think that the two halves make the whole truth, and that this will meet with your hearty acceptance.

The other half-truth then is this:—the action of small doses of drugs is in the opposite direction to the action of large doses. Therefore the law of Hahnemann, similia similibus curantur, remains true when limited to large doses; and the law of Galen, contraria contrariis curantur, when limited to the action of small doses; not true in Galen's sense, nor in any former sense put upon the phrase, but in a new sense, a sense which expresses a fact, and not a speculation."

Dr. Nankivell's paper is on Some forms of Phthisis Pulmonalis and their Treatment. The following will be read with interest.

"Iodine I have seldom given alone in phthisis, but generally in alteration with its compounds of arsenic or lime:

The chief general symptom that calls for *iodine* is wasting,—
the wasting that depends not so much on the pyrexia or the profuse expectoration, but on the inability to digest food, especially
of an oily character. I have seen frequently a course of the 3x
prep. enable a patient to digest milk with comfort, who had before
been unable to take it. And the addition of five or ten drops of

the 1x prep. to a pint of cod liver oil solves the difficulty of taking it more readily and more effectually than either Fox or Agnew have done. When the dejections are undigested or fermented or semi-liquid, this drug is also very valuable; even when the true diarrhæa of phthis is setting in its action is useful. The presence of laryngeal and tracheal symptoms call also for its exhibition, and its local use is often valuable therein.

Lycopodium is a medicine I have not often given singly. Dr. Meyhoffer, of Nice, spoke lately at the B. H. S. of its value in ehronic pneumonias, evidently referring to those of a catarrhal character. I am inclined to look upon it as an uncertain and temporal remedy, decidedly inferior to arsenic in curative power.

The physical indication for its use seems to be where one gets prefty extensive moist rales of a medium character with only comparative dulness; i. e. when the effusion into air cells has not yet become extreme, and where the affected lobules are probably not co-terminous with each other; the tendency to caseation and softening will here be but slight.

Sulphur I have scarcely ever used, except as an occasional intercurrent. When there is a suspicion of true tubercle, I question whether it is admissible in the lower preparations.

Of the class of remedies which occupy a more ephemeral position in the treatment of phthisis, we will first take aconite. The fever accompanying an intercurrent attack of catarrhal pneumonia does not always yield readily to this drug; and it certainly should not be pressed beyond twenty-four or thirty-six hours. It is useless to give it in the daily remittent that accompanies progressive phthisis.

Bryonia is a more valuable remedy, less depressing, and more in relation with the morbid processes. It often markedly relieves pain, dyspnæa and cough; more recent deposits are much under its influence; plueral mischief especially calls for it.

Antim. tart. is valuable where there is profuse purulent secretion, and when coarse moist rales are abundant in the healthier portions of the lung. In the following circumstance it is invaluable: a patient with damaged lung, whom you may have seen the morning, sends again at night in great distress, and dysprosponeration.

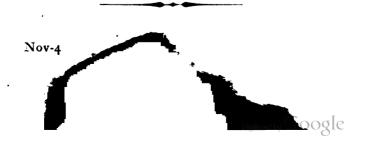
weak lung, though still resonant, to be devoid of respiratory murmur; the chest walls move with difficulty, and the intercostal spaces are drawn in during each effort at inspiration. This condition is caused by the blocking of a large bronchus, and is set right in a few hours by ant. tart.

I do not think phosphorus of much value in dispersing chronic deposits, or in aiding their induration. It assists, however, in checking the spread of the catarrhal process to fresh lobules, and in stopping an intercurrent croupous pneumonia, and the pneumonia which succeeds to hæmoptysis. In later stages, where pulmonary exhaustion threatens, it is of great use, and relieves the accompanying dyspnæa.

The treatment of pulmonary hæmorrhage is not yet placed on a satisfactory basis; when the origin is bronchial and unaccompanied with fever, hamamelis will be found of most service and often of immediate value; where it is truly pulmonary and accompanied with fever, acon. and hamam. in rapid alternation are most useful. But when the hæmorrhage occurs during the process of softening, and most probably from a ruptured artery, gallic acid in full doses should be given, or a careful trial of Dr. Anstie's new remedy, secale, made. The acetate of iron is also very valuable in laryngeal and tracheal hæmorrhages with frequent tickling cough.

Another remedy which has peculiar value in phthisis is strychnine: this alkaloid, in the form of the nitrate, in doses of the 200th to the 1000th of a grain, exercises its own peculiar action on the pneumogastric, preventing the frequent vomiting, and exciting the stomach to more regular and easy digestion; it has also the power in this dose of preventing much that is spasmodic in the cough, and of lessening the secretion from the lung and bronchi.

In doses of $\frac{1}{40}$ I have seen it act very marvellously on moribund cases, restoring for a few hours the power to think and act—a very valuable point on certain occasions."



Characteristic Materia Medica, by W. H. Burt, M, Boericke and Tafel, publishers; second edition.

When the author's first edition cand out, we were so far interested in it, that we ventured to write him pointing out what we conceived serious defects, and modestly suggesting certain improvements that might be made. No audible response was made to our suggestions, and we feared the distinguished author understood his business better than we did. So far as we can now see, this edition shows the objectional features removed. At least, they do not appear in the body of the work. Its alphabetical arrangement is a decided improvement. The clear type, neatly set off in paragraphs and liberally leaded, makes it easy of reference. It will prove to be one of the best text-books on materia medica for students, and one to which the practitioner can best refer for the selection of his remedies.

But the warping which the author gave his first edition to suit his peculiar notions, having been taken out of the body of the work, still appears in the elaborate introductory. His pet theory of organopathy may be read with interest, but it does not strike us as having any special value. In his dedication of the work to Prof. Guernsey, he justly refers to the "Keynote System," giving Prof. G. due praise as its author; but when he says Guernseys System of Obstetrics is "the most reliable work ever written on the science of medicine," the statement must be taken with a grain of salt. If his characteristics of remedies are as wide of the mark as this alleged characteristic of Prof. Guernsey's tentative work on obstetrics, we should doubt its reliability.

There is a flavor of genuine wit in the following: Some person said to Sterne that apothecaries bore the same relation to doctors that attorneys do to barristers. "So they do," said Sterne; but apothecaries and attorneys are not alike, for the latter do not deal in scruples.

Miscellaneous.

OUR EUROPEAN LETTER.

Allgemeines Krankenhaus, Vienna, Austria, October 26th, 1873.

EDITOR OF THE CINCINNATI MEDICAL ADVANCE:-

In this busy student life the days are not numbered, and time flies apace, and one is startled into a realization of passing events only when some sudden necessity comes to know the current month, as in dating a letter, or in some other equally important consideration. Then arises a debate in the mind whether it is past time or present, and when it is once settled that it is indeed now, it is an awakening to a new appreciation of passing events. What student here, with hours filled in from daylight until dark -indeed, until late night-with absorbing study, can "take note of time?" Few, I am sure: so let all this serve as an apology that promised letters have not been frequent, for it is like being thrust suddenly against a blank stone wall, and by the concussion brought to a nealizing sense of circumstances and necessities, to stop even for an hour from the every-day routine, and indite letters for home entertainment. But notes of interest crowd upon me, and by sheer necessity to escape an excess of accumulation, I will-have to begin to make use of them.

This letter shall be devoted more especially to a wonderful instrument, here upon exhibition in the "Welt Austellung," in the "Military Sanitats Pavillion," an instrument for the transfusion of blood, which has been the wonder and admiration of the medical public here, and has filled the medical journals with praise. This ingenious little instrument is the invention of Dr. Roussel, of Genewa, Switzerland.

The theory of the transfusion of blood is as old almost as is the theory and practice of medicine itself; but the utilization of this theory into a general and successful practice has for many reasons failed, although it has been often attempted, and failed

almost as generally as attempted, until now this little instrument of Dr. Roussel bids fair to compass all the needs and necessities attending the operation.

About two hundred years ago, there was a revival of the theory of the transfusion of the blood, and the enthusiasm and excitement agitated the medical scientific world deeply. Much was said and written of it, and many experiments tried and operations performed, and it was thought it would prove a panacea, almost, for all of the "ills flesh is heir to." Diseased inheritances and dyscrasies were to be eradicated by it; anmric patients to be restored through its replenishment, and exsanguinated patients revived through a supply of the vital fluid; old age to be rejuvenated; etc.; etc.: and so far were the experiments carried. and so disastrous were the results, that finally an edict was issued by the government of France imposing a heavy fine upon any physician that should repeat the operation or experiment further with it: and so this famous theory again fell into disrepute. And well it might; for disaster followed in almost every instance where the operation was instituted.

Though the idea itself was good, and the possibility of successful results from the operation has since been demonstrated, the means that were then pursued and even their theories were seriously at fault, the ingenuity of their instrument-makers not adequate to compass the invention of an instrument, and indeed the scientists not themselves comprehending the dangers and errors that had given such disastrous consequences. The blood in many instances drawn from arteries to be injected into veins. or vice versa; and drawn from the artery or vein into a vessel, where, coming in contact with the air, of course coagulation occurring speedily; and, with the imperfect instruments, when the blood injected into the opened blood-vessel, air also being transfused with it, these operations could not be otherwise than fatal. Later, when the resulting embolism was appreciated as one of the causes of failure, the blood was delibrinated previous to transfusion, and sanguine hopes entertained that this appreciation might obviate many disasters—but with results not gratifying expectation: and so the probabilities of a successful use of transfusion in general practice had come to be regarded as one

of the incompatibilities of theory and practice. But certainly it is now awarded to Dr. Roussel that he has in the invention of his instrument compassed all the practical necessities for successful results to be insured in the operation of transfusion of blood. By this instrument is the living, undefibrinated blood conveyed directly from the arm of the healthy, vigorous subject into the vein of the patient in extremity, without the introduction of air; and so quickly is the operation executed, that it maintains the same temperature in passing that it holds in the vein from which it is withdrawn.

The instrument by means of which this operation is so skillfully, expeditiously and neatly executed, is composed almost entirely of hard and soft rubber, having but one piece of glass in it; this a small glass tube, through which first the water and then the blood flowing serves to indicate to the operator the entire exclusion of air. There is a cupping-glass, or rather a double cupping-glass, one within the other, from which the air is exhausted by means of a rubber ball and tube attached to the cupping-glass. This by exhausting the air is fastened firmly over the yein in the forearm, and, when secure, by means of the rubber ball it is filled with warm water, which is conducted to and fills the cupping-glass. The action of pumping continued, the warm water flowing in, the cupping-glass is filled, and it is carried on through a rubber tube that terminates in a small rubber pipe, which is inserted into the cephalic vein of the patient awaiting the transfusion. The passing of the water through the cupping-glass and rubber tube displaces the air perfectly, which displacement is maintained as the tube and pipe and cuppingglass are kept full of the warm water until displaced in turn by the free flow of pure blood. When assured of the thorough displacement of the air, a little valve turned shuts off the supply of water, and the lance sprung, which is concealed in the smaller inner cupping glass, the pumping maintained, the blood is withdrawn from the punctured vein, and, in an incredibly short time, the contained water forced out the tube by the pure blood, it is seen streaming from the little rubber tube, which has only to be introduced into the small aperture which has been made in the cephalic vein of the patient, and the operation is most speedily effected, it requiring between two and three hundred grammes of blood usually, in cases exsanguinated by an active hæmorrhage, and from eight to ten pressures upon the bulb carrying over this amount. Below I will give you a translation from the German of Dr. Roussel's history of his first operation with :his instrument in private practice, which he has kindly provided me with:

REPORT OF AN OPERATION OF TRANSFUSION OF LIVING AND UNDEFIBRINRATED BLOOD, BY DR. J. ROUSSEL, OF GENEVA, SWITZERLAND, WITH THE TRANSFUSOR OF HIS OWN INVENTION.

"The first time in my private practice that I performed this operation of the transsusion of the blood, was on the 3d of December, 1865. I was called in great haste to attend a youthful patient, seventeen years of age, who was flooding to death from hæmorrhage resulting from a miscarriage. The midwife in attendance had, with the sister of the patient, used all the means within their knowledge, and when I reached my patient all the riends in consternation and despair supposed her dead. patient had, indeed, fallen into a profound syncope from the exreme loss of blood. The skin was entirely cold, and covered with a clammy perspiration, extreme pallor; nose pinched and she seemed in moribund state; no pulse to be discovered; the pupils widely dilated under the closed lids, and the eyeballs rolled high in the sockets; and indeed was I almost, too, decided in the opinion that I was too late, that my patient was already dead. But upon critical examination I thought I could detect a slight vibratile movement in the precordial region, and that there was still feeble heart action. Upon my proposition to resort to transusion the sister of Mrs. L. assented most readily, and, after my explanation of what was necessary to do, volunteered, and speedily prepared her arm for the operation. I bandaged the arm tightly above the elbow and placed the cupping-glass upon the arm over the vein, exhausting the air when well adjusted, filled the instrument with warm water by means of pressure upon the rubber ball. The water, slightly salted and warm, pumped through the instrument diplaced the air, then I pressed the lancet into the vein; by shutting off the water, the blood speedily dis-

placed the water already in the instrument, and, in a few minutes, the pure blood streamed from the tube. In the little aperture made in the arm of my patient and penetrating the cephalic vein I placed the tube. It was with much anxiety and little hope of success, that I undertook the operation; but death was inevitable otherwise, this giving but small chance and was the dernier re-The instrument that I had with me delivered only ten grammes of blood at each pressure upon the rubber ball. the tenth pressure, the sister of Mrs. L. thought she detected one or two gentle pulsations of the heart, as she sat with her hand over the precordial space. After a minute or two, the heart's action was evidently established, and I quickly followed up the gentle transfusion; but, as the respiration was not readily established, I desisted, giving the transfusor to the midwife and proceded to lave and spinkle the face of my patient with cold water. As I awaited the more active pulsation of theart, which had become more profound and slow in its motion, I detected a trembling and general movement in her lungs. I used most energetic friction with a rough towel upon the breast, face and region of the diaphragm. This energetic treatment caused a responsive animation, the nostrils dilated, distending and collapsing impetuously. Respiratory efforts becoming deeper and more prolonged, I again took the transfusor in my hands, but observed that respiration, instead of becoming freer, was more obstructed, slower and weaker. After a short pause, while breathing was yet apparent, she quietly inhaled and exhaled three or four times in rapid succession, and then, with a sort of sobbing sigh, there escaped from the mouth a little bloody spuma, and there seemed a complete cessation. Again, however, was the respiration established, with the sobbing sound several times repeated, followed by yawning and hacking cough, which was twice repeated. The patient, though pale and collapsed, gave hopeful indications, when suddenly she passed again into a profound swoon, this resulting from the removal of a uterine hæmorrhage which the reanimated circulation had again established. Following up the transfusion, I pressed the ball over twenty times, and injected from 150 to 200 grammes of blood, daring to risk this amount as the ultimatum, and signs of returning animation were visible.

It was only twenty minutes from the beginning to the ending of the operation, when the woman apparently dead was reanimated, if not saved. As I bandaged the arms of both women, closely observing my patient, I found faint tinges of color reappearing to the lips and cheek; and, as the eyes opened, the pupils less enlarged; and upon examination, the heart pulsating regularly, though the action was feeble. I now ordered a restorative drink of warm punch with liberal amount of spirits. As she attempted to swallow the first spoonful, she coughed violently and ejected a considerable quantity of frothy sputa. Later I allowed her the drink ad libitum, and she drank nearly half a glassful of the fluid. The pulse arose to 120 and great drops of perspiration covered her face, and again she was seized with a trembling, which was succeeded by a sudden extreme pallor; and as I feared the flooding was again established, and to the stopping of and its prevention I now directed my attention, and upon investigation the fresh blood gave evidence of the renewed hæmorrhage and also that during the state of unconsciousness there had been involuntary urination and defecation. After assuring myself of security for my patient against the return of the hæmorrhage I allowed her to be carefully sponged with tepid water and the stimulating drink Toward midnight, I had the joy of seeing my to be resumed. patient, who when I was called seemed apparently dead, entirely restored; in a very reduced and weak condition truly. but living. She was serenely quiet, without pain, and wished to sleep. From the extreme weakness she did not readily rally, and in two days after the operation, I proposed to Mrs. L. that the transfusion should again be repeated; I broaching this early, while the favorable results of the operation were fresh with them. She held herself in readiness to submit to whatever my judgment would dictate. Her robust constitution and general good health stood her in good stead here, and transfusion was repeated in the same manner as was the first operation and with perfect success. The pulse stood at sixty and a slight headache followed. wound gave her some little pain, as it had suppurated slightly, and from it escaped a small quantity of blood and pus; but in ten days the little wound was perfectly healed, and in eighteen days she was in attendance upon her regular business, and rejoices

that since her health has generally improved. It will be well to state that the sister from whom the blood was transfused was a healthful, vigorous woman, about thirty years of age, and the small loss of blood which she suffered was followed by no unpleasant consequences, and that the slight cut in the arm soon healed, and from the effect upon herself she was in no way conscious that she had spared any of her precious blood. I have not a doubt with me but for the operation of transfusion the patient would have died and that, too, very quickly. No other means that could have been commanded would have sufficed for the saying of life in such an instance, and, too, am I assured that my instrument only in such an emergency can be made available, as with it, not only the utmost celerity can be commanded, for it is always ready, but by it the amount of blood transfused can be accurately determined, and with my instrument the blood transfused cannot possibly contain either coagula or air, as it conveys normal living blood directly from the living, vigorous person to the patient in extremity. The transfusor used in this instance was only one foot in length, and the temperature of the blood transfused remaining the same as when in the vein of the person from whom the transfusion was made. I have since twice had occasion to repeat the operation of transfusion in my private practice, and with equally good results, and with circumstances so similar as not to necessitate a detailed narration; and the manner of procedure and the results were in common with the first success that crowned my attempt."

It is not in private practice however that Dr. Roussel anticiputes that there will arise the greatest demand for and the most brilliant results in the use of the transfusor, but in the military surgical use of the instrument does he anticipate for it a wide, extended recognition, and to be the means of saving many hundred of lives of wounded soldiers, when the adoption of its use shall be general and its utility recognized. And so simple is the instrument, and so easily used, that an ordinary soldier, with a proper instruction as part of his soldierly education, could rescue a wounded comrade. If this little instrument could have been known and been in general use in our late war, our volunteer soldiers, each one representing Yankes brains, as well as fighting

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force, could and would have rescued many a brave comrade, that they were helpless to save.

The University courses have all commenced and the private course announced, and all in the hospital are full of the most active business. I assure you study here means work, and from Prof. to student this is appreciated. There are fewer Americans here this year than for several, so it is said, and many surmises as to the reason why; for they have formed heretofore a very large portion of students from abroad. But my letter is already too long, and I will leave gossip for another time.

Yours truly, Dr. Elmira Y. Howard.

OUR LETTER BOX.

"I am much obliged to you for the copies of ADVANCE. There are many things I like in it and some I do not.

"If I should offer a criticism, I should say the ADVANCE is too much like one who beats the air; or it is too iconoclastic; or one who attempts to traverse the ocean without chart or compass. Its great devil is formulated truth—an established fact gives it the nightmare. It revels in the idea that that there is an everlasting uncertainty in everything. Beware, iconoclastic ADVANCE! the image you strike may be marble and you will hurt your hand. Or, as you are sailing without chart, you may strike a rock and down goes your craft.

"The study, researches and discoveries of the past have established some truths. Let us hold them fast and gather more, and thus the great temple of truth will finally be built and completed.

"There how do you like my critique? N. B. W."

We like it very well. That our labors are appreciated by any one, is a source of gratification. Since the time when the memory of man runneth not to the contrary, the world has been, and still is, full of agencies, individual and collective, always ready to settle any and all questions that might arise. There is no known question of great, or small import, that has not been repeatedly,

and to some parties satisfactorily, settled by many assumed authorities, and in as many various ways. To the majority of mankind, the *mode* of settlement is of less importance than the *fact*. To these persons, *doubt* is the greatest of "devils." It has been so thoroughly anathematized as to have lost its standing in good society. From Pope to pedagogue, the cry has continually rung in our ears, "only believe! only believe!"

By sheer pedantry and bold assumption, the world of thought has been completely subjugated. Free and independent inquiry, with the major part of the world, has existed only in name. It is our opinion, that this state of affairs has prevailed quite as much in medicine, as in any other department. And it is furthermore our opinion, that a reform in this particular is greatly needed.

To assert that any truth is established beyond controversy, and therefore is satisfactorily settled, is to ignore one of the plainest and most universal of known facts. The danger of controverting such questions is a bug-bear. But to accept the settlement of these questions by any authority that has not been, and will not be challenged—to do this rather than suffer "everlasting uncertainty," is certainly quite proper to those so inclined. The ADVANCE is not of that class.

CHILDREN'S DISEASES.

Nine tenths of the ailments of nursing children arise from want of outdoor air, want of warmth, and want of suitable food. Dress the baby warm; keep its little feet and legs and arms abundantly warm; give it outdoor air in some form every clear, bright, bracing day, and if it is sick at all it is because it is fed too often, or the food is unsuitable. When six months old the child should not be fed at shorter intervals than five hours—not an atom of food between: the mother's milk is best; next to that the milk of a healthy cow, the fresher the better, for the danger of souring by being put in vessels not perfectly clean, is very great. The atmosphere begins to act unfavorably on milk within an hour after it is drawn, hence, if it could be given as soon as taken so

much the better; it is clear that this was Nature's intention. No substitute for the food of nursing infants ought ever to be used if cows' milk, freshly drawn, can possibly be had. It is inexcusable, it is criminal to give a sucking child any other food than its mother's milk, or that of a healthy cow, if it is possible to procure it. All the substitutes ever devised were expedients, in cases where cows' milk could not be had recently drawn, as in cities or on shipboard. Now and then a child may thrive on other forms of food, but they thrive in spite of it, not on account of its adaptiveness.—Medical Brief.

WASH THE FEET.

Some persons who do not often wash their feet, surround themselves with an atmosphere both offensive and poisonous to breathe. If you doubt this, go into a room where a number of persons are taking off their boots preparatory to retiring for the night, as they sit around the stove warming their unwashed feet. If the odor is not so offensive as to drive you thence, you must be strongly endowned with power of endurance.

Now, an atmosphere similar to that just described, every one who neglects often to wash the feet has to inhale, which, in the production of disease, is equal to breathing air highly impregnated with carbonic acid gas. Moreover, many persons suffer habitually with cold feet. The coating of waste matter on the bottoms of the feet and toes, often mixed with much soil from the earth, obstructs the natural purification of the blood; the stockings become saturated with offensive perspiration, and with the superfluous covering often crowded into tight boots or shoes, is it a marvel that the feet suffer from cold! Cold feet are the source of many ills. Let the feet frequently be washed in cool water, and well rubbed with the towel and the hand, and cold feet, especially if boots and shoes be of proper size, will become rare.—Medical Brief.

MATTERS entirely beyond our control have successfully conspired to prevent an earlier issue of the present number. We hope to be able to make all due amends. If you have not suscribed, do so at once, and thus make assurance doubly sure.



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MEDICAL COLLEGES—ARE THEY TO BE DIS-CARDED?

The Medical Union, a monthly journal, is in an unpleasant state of mind. It has taken the medical colleges in hand and reads them such a lecture as would put Mrs. Caudle to blush. It endeavors to discuss "The profession and the medical colleges;" but its editor has so thoroughly lost his equilibrium, that argument is quite laid aside, and a bitter impeachment of the colleges is attempted. His first statement indexes his whole attitude: "We doubt whether, at the present time, a medical diploma entitles its holder to the slightest consideration or respect, even in unprofessional minds." But when this astute editor was a medical student and a diploma hunter and a degree taker, it was in those golden Dec-1

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days before fools were born or frauds invented. Has this writer gone into his dotage so that he cannot appreciate the present, or see that the world is better in many things than it was when he was a boy? Is this the irrepressible cry of his conscience in view of his having obtained a diploma without proper qualifications? Hear him as he proceeds:

"The opinion is well-nigh unanimous, that the degree of Doctor of Medicine, considered as a certificate of professional scholarship, is not worth the parchment it is written on. * * * * A medical diploma is no evidence of either learning or ability, because it is granted by unqualified and incompetent persons. The position of a professor in a medical college is gained, not by force of scholarly ability, nor by the demonstration of peculiar fitness for the duties of the position, but by personal influence with the trustees and faculty."

This is the very essence of an ambition that has been badly thwarted. It is the language of a disappointed aspirant. Poor fellow! he will never forget his rejection by a judicious faculty and board of trustees. Such sweeping declarations better befit the temper of a defeated politician than the utterances of a candid journalist. As exceptional facts, the statements are perhaps true enough; but in the sense they are offered, they are simply untrue.

What positive information has this hot-headed writer concerning the workings of all, or of any of our medical colleges? Has he made a tour of inspection? Is his information direct and personal? Has he in the past five years darkened the door of a medical college within his own city? Does he imagine that medical colleges have been standing still ever since he graduated?

In the face of such charges we assert that, with an intimate acquaintance with a large number of colleges during the past fifteen years, we are prepared to say that no class of men have worked harder or more successfully to keep pace with the demands of the times than have our college faculties. A very gencrous rivalry among the various colleges has been a constant stimulus to progress. Let any man who graduated only five years ago take his place in the class again, and then say, if the college curriculum and requirements have not been vastly improved. Let this virtuously indignant editor, who flaunts his degree in his editorial

column, come down from his lofty place and sit by a medical student of "the present time," and compare notes with this modest seeker after truth! Let him submit himself to the ordeal of a final examination, such as is now instituted in most of our medical colleges, and see if he finds the wines all watered, the milk all whey!

We have no desire to defend all the medical colleges. No more are we willing to see them pilloried through the wrathful indictment of an irate editor. He will find it just as hard to make his readers believe that all the colleges are bad, as he would to make them believe they are all good. One of the qualities of a true critic is a fine discrimination; he should be able not only to distinguish between right and wrong, but the finer shades that mark their different states and degrees. Had our *Medical Union* critic been blessed with such a power of discrimination, he would not have shown such Milesian judgment in hitting heads wherever he found them.

There are glaring faults in our system of medical education, and the writer sets them forth with considerable force. But when he says, "We shall look in vain for any practical response on the part of the colleges to the growing demands of the profession," he clearly lapses into the tone of an embittered enemy or a feed attorney.

And when he further says, "None are so well aware of the general incompetence of medical teachers, the deficiencies of medical education and the worthlessness of medical diplomas as the facu ties of these very colleges; and they must meet this question of a higher education either by silence or evasion," his judgment is again entirely at fault. Acting on his plain admission that a college professor may know more than an editor about this whole matter, we beg to correct his ignorance and misapprehension of college affairs. And if he considers this protest, uttered in the name of the colleges he has so grossly slandered,—if he considers this either "evasion or silence," he is made of duller material than we think he is.

He has succeeded in awakening this response, and he may find from other quarters like answers to his ill-considered charges. We would advise the writer to carefully gather in his statistics of the various colleges—they are quite come-at-able—before he again launches at them such mighty thunderbolts. These are matters of fact rather than feeling; and specific and detailed statement will do vastly more than such general and sweeping indictments.

It keeps us constantly on the alert defending Homœopathy from assault. From right and left, from front and rear, come the blows so vigorously and well aimed that we almost despair at times being able to save the system so much as its scalp.

The last and worst attack comes from the American Medical Journal—a promising infant, though yet in its swaddling clothes. Says the editor, "What do you think of Homœopathy!" And he hastens to reply: "Homœopathy cannot be true, because natural truth cannot be pressed into the artificial formulæ of scientific systems any more than the varied, graceful and ever-changing types of living beings can be represented by mathematical diagrams." We are almost paralyzed by this thought. It is an argument that silences, if it does not convince. How can we strike back at such a shadowy foe?

By the same argument the editor and his journal could be proven untrue. And, if the latter is kept filled with heroic doses and compound mixtures and nauseating prescriptions so common to the Eclectic school, we shall be forced to apply this patent logical extinguisher and convict it of having no claim to truth.

"The Advance publishes it and we take it for granted endorses it."—Ad Lippe, M. D.

If good Dr. Lippe were editor of a medical journal he would probably not publish anything in it he did not himself believe. There would under his management never be more than one side presented. He would be more dogmatic than inquisitive. Not caring that men honestly differed with him he would reject all ideas that did not conform to his notion of truth. His impatience toward men who have not reached the high ground he professes to occupy leads him to call their efforts in medical literature "twaddle." This is not very encouraging to beginners. We have repeatedly announced the platform of the Advance as broad

enough to hold all seekers after truth. The Advance endorses nothing unless it takes the pains to say so. Every writer is alone responsible for what he or she may say. Will our friends remember this and save further unnecessary trouble?

"If the disciples of Hahnemann would preserve their distinct character they must not open the door of exclusiveness to let in the light of science."---Pacific Med. and Surg. Journal

That species of philosophy is far too deep for us. Is it the impression of the opponents of our school that if the "light of science" would utterly confute Homœopathy, we would still cling to it, and for that reason we must "shut it out?" Is it possible that there is any science in the developments of the history of medicine, in the regular source? Is there any necessary relation between empiricism and science? If there is, which school stands upon a scientific basis? Suppose that it fail of demonstration after years of apparent bedside confirmation—would it fail by conclusive deductions drawn by noting the working of a given law, or would it fail by the never-ending changes of an empiricism which proves and disproves all things in one century?

If Homœopathy should do no more in the next fifty years than to disprove the law "Similia Similibus Curantur" it would accomplish more in a scientific, orderly manner than the regular school has accomplished in thousands of years.

FISH.

THE Investigator has the severest way of noticing new books we have seen. After unlimited praise of a work on surgical diseases, it quietly scalps the author, by stating that the editor of the journal "condensed" it, "rearranged" it, managed to get "the parts on 'diseases,' 'injuries' and 'wounds' and the therapeutics thereof happily fused together." In fact it was "severely condensed" and the editor only let up on the operation when the profession didn't take kindly to condensed milk, and then "more latitude was allowed."

No one doubts T. C's. ability to scalp "happily," even without so much as a drop of blood.

DR. Peters, a gentleman whose veracity is being questioned of late, and who in former times questioned his own veracity by advocating Homœopathy for a time, has at last carried his repu-

tation to the Pacific coast The Pacific Med. and Surg. Journal handles that gentleman's Cholera Reports with extreme, and apparently truthful, severity. He is the same perverse gentleman who "took in" Cincinnati, and lost reputation for truthfulness thereby. A few years had passed since the medical world had been familiar with Dr. Peters' several failures. It is extremely difficult for him to keep out of the public print, or get into it with any credit.

F.

ONE or the most remarkable exhibitions of latentcy of mental power is in the continued failure of our allopathic friends to realize the efficacy of infinitely small doses in the treatment of nervous diseases with phosphorus.

Theory and Prackics.

CLINIC OF PULTE MEDICAL COLLEGE.

SERVICE BY PROF. W. OWENS, M. D., OCT. 31, '73.

Reported by C. F. Gatchell.

CASE I. Mrs. O'Conner, wife, aged 35, has been ailing, she tells us, for six months. She complains of general weakness, a stiff feeling in all the bones, as she expresses it, and, from what she says of the condition of her appetite, and some degree of tenderness about the region of the stomach, I should think we had here some gastritis. She shows us, however, a bottle; in which she got some "drops" from the drug store, which she has been faithfully taking, without relief. There is no label on the bottle, but one whiff satisfies me that she is making a slight proving of valerian, and is suffering more from the effects of the medicine she has been taking than from the disease. We will confine her to the use of bell.³, a dose every four hours, and promise her a cure with some degree of confidence.

CASE II. Eddie Purdy, eleven years old, comes to see what He is a cash boy in a down-town store, can be done for him. and is thus upon his feet much of the time, He has been ailing for six weeks. He complains of a frontal headache, which comes on every afternoon. There is a full throbbing sensation, as well as vertigo, also pains in the limbs, which come on with exercise. and a tired, languid feeling of the whole body. The tongue is slightly covered with a brown coating, the edges and tip being red. Taking the patient's condition as a whole, I should think that these symptoms pointed very decidedly to a threatened attack of bilious fever, and would recommend that he keep very quiet until he is well over this. I would put him upon the use of bell.8 and rhus.3, taken in alternation every two hours, and should expect to see him as good as new in a short time.

CASE III. J. Callahan, aged—, laborer. From the history of this patient we learn that he has long been a sufferer from chills and fever. He has had chills at 12 M. for the last three days, and even now has one coming on. The tongue is heavily coated, the skin jaundiced looking. He has taken great quantities of quinine, which has done him no good whatever, and never will. He is already carrying more quinine in his system than is good for him. Gentlemen, there is no longer any use treating this man's chills—we must treat his general condition and when we get that up to a better standard, the chills will of themselves leave. We will not prescribe for the chills, but for his general condition. You will find that these old cases respond very readily to mezereum. We will put this man upon merc. vivus, 2d trit., a dose every four hours, adding a dose of eup. perf. every forenoon, and a dose of mez., every afternoon.

CASE IV. A. Barton, age 14. A year ago our patient took cold, which was followed by a cough and raising of mucus. He suffered from stitches on both sides of the chest. Examination reveals that the right side is larger than the left—a flattening of the left over the region of the heart—full again on the right side over the liver. There is probably atrophy of left lung on account of old adhesions. At present he is suffering from chronic gastritis. He raises, particularly in the morning, a light mucus which floats on water. Auscultation leads us to think that the air-cells

are not involved. A slightly fissured tongue, and some tenderness over the stomach would show that chronic gastritis accompanies this trouble. Our prescription will be sulph. 30, three doses a day, one day in each week.

CASE V. J. McKay, 7 years old, wants treatment for swelling of the sub-maxillary glands, as well as enlarged superficial cervical glands. This condition followed an attack of ulcerated sore throat, with which he was troubled a year and a half ago. The throat shows a cicatrix, where an ulcer existed at that time. There is also some involvement of the sublingual glands. The iodides will have to be relied upon largely in these glandular affections, and we shall prescribe for him the prot. iod. merc., 3d trit., two doses daily. This I think will have to be followed by the iod. ars. 6, same dose for three months.

SERVICE BY PROF. W. OWENS, M. D., DEC. 16, '73.

The patient who presents himself to-day, W. D. Robertson, is a man of medium size, 49 years old, general good habits of body. The history that he gives shows that he has led an out-door life, and that he has been upon his feet a great deal, walking over rough ground and hard pavements. In Nov., 1864, he was taken with pains in his legs, particularly in the knee joints and front part of his thighs. These pains were particularly felt at night in bed, and more especially when the knees were in contact. There was great sensitiveness of the parts to contact, amounting to a high degree of hyperæsthesia, making slight contact intolerable. He observes no difference in the pains in wet or dry weather, summer or winter, but remarks that he is worse at night, generally feeling most comfortable in the morning.

The parts now most affected are the front and internal aspect of the thighs and of the legs a short distance below the knees, the front of the thighs and hips, sometimes extending into the abdomen. A peculiar feature of the disease is an atrophy of the muscles of the affected parts; which in the thighs is quite noticeable. The patient states that in the last nine years he has been treated for *rheumatism* by at least twenty different doctors, without decided benefit, and that he has taken enough of the iodides to stock a small drug store.

Now while this is a case of *rheumatism*, the true character of it has been overlooked, for had it been properly treated for *nervous rheumatism*, which it really is, the patient would not have applied to us for help to-day.

The nerves affected we can readily discover to be the anterior crural and its branches, the internal cutaneous and the long saphenous throughout its course until it divides into two branches found at the lower part of the leg; the part known as the plexus patellæ being the principal distribution involved.

An absence of heart trouble assures us that this rheumatism is not of an inflammatory character, for had this been the case he would hardly have escaped endocarditis all these years.

From the nature of this case, I judge it to be dependent upon a tumefaction of the anterior crural, somewhere near where it comes off from the lumbar plexus, or possibly the tumefaction, if such there be, exists within the vertebral canal itself. This is the more probable from the fact that both sides are affected. Taking this view of the case, I shall prescribe nitric acid 3d, for the relation it holds to such a condition, and also, to be taken in alternation with this, a dose every four hours, I will add calcarea 3*, to cover this condition of defective nutrition as evidenced by the state of atrophy. I will add that I think this condition of tumefaction was brought about by the strain or irritation consequent upon the patient's being so long constantly upon his feet.

HOMEOPATHIC VACCINATION AS A POSITIVE PREVENTIVE AGAINST SMALL-POX.

Sir A. von Kaczkowski, M. D., states that, since his conversion after 20 years practice from Allopathy to Homoopathy, he discontinued the usual mode of vaccination, and instead gave potentized vaccinium internally with good results. Later experiments in the exhibition of variolinum humanum, 3d trituration, and also 6th dilution, proved it to be a positively certain preventive against small-pox.

The following is his homoeopathic method of vaccination, viz.: To obviate the peculiar force of psora in the human organism, he gives three pellets of sulphur (30th) every morning and evening for three days. If the child is nursing, he gives the remedy to the mother, enjoining a strict regimen. This medicine is allowed to act four or six weeks. Should no eruption on the skin, or no glandular swellings appear, he then gives the child alone or to both mother and child three pellets of variolinum morning and evening for three days. The child must not be exposed to dampness, cold nor draughts of air, not to bathings, but must be well nourished and taken out in pleasant weather.

If there be small-pox in the house or immediate vicinity, lose no time with sulphur as an initiatory process, but give immediately variolinum to every person as a prophylactic in the manner described above; for if the contagion has entered the organic fluids, variolinum cannot protect, but can simply ameliorate.

If small-pox be already evolved, he gives apis 30th and mercurius solubilis 30th in attenuation, every hour during the day. Evenings, during the higher fevers, he gives aconite 30th, and continues this treatment from three to five days. When pustules are swollen, he gives variolinum 6th dilution; if torpid, the 3d, in water, for the day. After the second dose, the pustules shrink, crust over and fall off, leaving no scars. The sick room to be aired twice a day, patient to be lightly covered, to prevent needless sweating. Diet for first eight days to consist of milk, barley, rice, sago, beef or chicken soup. The drink to be water with sugar or raspberry juice. As the pustules dry, permit more liberal diet of easily digested food.

After the epidermis peels off, the homoeopathic vaccination is complete. The newly formed skin must be annointed with warm sweet oil two evenings in succession. Thus much we condense from Dr. J. Pettet's admirable translation of Dr. K's. monograph.

O. W. L.

Forty young ladies attend the medical department of Michigan University this winter.

HERING'S Analytical Therapeutics gives an instance of felon on the thumb of a shoemaker, with necrosed phalanx, cured by smelling of silica and hepar every time the pain was aggravated. And silica is not much of a substance for smell either. We doubt if there is not just about 8,000 times more silica, dynamised, in the atmosphere than in the same volume of the 1,000th attenuation.

F.

Surgery.

HYDROPHOBIA—A DISEASE OF THE IMAGINATION.

READ BEFORE THE CINCINNATI HOMOEOPATHIC MEDICAL SO-CIETY, OCT. 7, 1873, BY WM. OWENS, M. D.

Sir Joshua Hunter says: "I am sure that I can fix my attention upon any spot, say my little finger, until a sensation is produced on it." Ben Jonson, in reference to his experience, says that he distinctly saw Turks, Tartars, Romans, etc. in conflict about his great toe. Charles Dickens affirmed that he heard every word spoken by the various characters mentioned in his writing. Experiments and observations of this kind presuppose a theory; that theory involves a belief and expectation; then tests for the solution of any doubts. When the attention is fixed upon any point, some result is expected and watched for. If fright, fear, terror, anxiety or any other emotional power or dominant idea enter into our mental condition, it may contribute very largely to that expected result.

Dr. Juke, in defining intellect, says that "it is the result of impressions made upon the senses from without—states purely

ideal, recollective or creative imaginations, so combined as to construct new forms, which, under the influence of fear, apprehension or expectation, (as is always the case in hydrophobia,) developes a most favorable condition for the production of illusions, hallucinations and morbid mental phenomena."

A confident assertion made to an epileptic patient, that he would have an attack at a certain time, has, it is alleged, been sufficient to cause a seizure. A lady in England was suspected of having murdered and buried her offspring. The officer whose duty it was to investigate the matter, declared, before the coffin had been raised out of the grave, that the odor from the decomposition of the body was so great that he was made sick and compelled to retire. Upon opening the coffin, it was found empty; and it was afterward proven that the lady had had no child, and that no murder had been committed.

Dr. Percival relates an instance, in which it was exceedingly difficult to prevent a man from rendering himself completely hydrophobic. He and his wife had been bitten by a dog supposed to be rabid. The woman thought nothing of it, but the man, a nervous hypochondriac, fancied that he had an uneasiness in the throat, and that he could hardly swallow anything. He was asked by a physician in consultation if he had any heat in the stomach. After some hesitation, he answered, no; but on the next day he was found in bed, and complaining severely of heat in the stomach. He continued in this way to persuade himself that he had rabies, for almost two weeks, when he was assured that no case of hydrophobia ever lived more than six days. After this, he was soon out of bed and moving about. Dr. Percival remarks. that "by a little indulgence in his fears, (expectations) this might have been converted into a clear case of hydrophobia, and the patient would probably have died."

Every physician's observations might supply many such examples from his own experience, not from hypochondriacs alone; but from those supposed to have good health and sound understanding. Men and women have been known to die almost instantly, from strong mental impressions. It would be needless to mention cases of this kind; our text-books are full of such instances; beside, we scarcely ever pick up a paper without hav

our attention attracted by head-lines such as "death from fright," "death from excitement," etc.

One of our medical journals reports the death of a lad, who, while playing with his companions near his own age, was told that they were going to cut his head off. He joined in their glee, thinking it was a good joke, The block was prepared and his cap pulled over his face, his head was laid upon the block as if to undergo the operation. A cloth wet with cold water was then drawn across his neck, when his companions were horrified to find that he made no response; the boy was dead, by fright or shock.

I presume all have witnessed the disappearance of warts, by the mere declaration that at a certain time they would be gone, by rubbing them with a piece of pork which is to be buried or concealed in a particular place, or touching them with a rusty nail which is then to be thrown away—directions which may seem trifling, but it is avowed have been followed with the promised results, and can be demonstrated again and again at any time.

Most obstinate constipation has in many instances been entirely relieved by bread pills taken under the impression that they were composed of the most powerful medicines. Most violent and persistent attacks of croups or spasms of the stomach have been relieved by the same remedy.

A writer in the *Popular Science Monthly*, for June of the present year, refers the readers of that journal to some very interesting facts in relation to hydrophobia in the human subject, and ventures to quote Dr. Marx, of Gottengin, as one who is imbued with ideas upon this subject opposed to the popular one. For which, the editor of the monthly is taken vigorously to task by Prof. Henry Hartshorne, of Philadelphia. The editor, and public generally, are warned that the most dire consequences will immediately result if such a belief should prevail generally.

But Dr. Hartshorne should remember that this is no new idea; that Russian and Swedish physicians have maintained it for many years; and that in these countries hydrophobia among canines has at different times prevailed as an epizootic, and that there has been at all times, a great prevalence in the north and

west of Europe, being developed spontaneously in many instances, affecting not dogs alone, but wolves, foxes and cats. In man it has never been witnessed except as the result of the bite of some animal alleged to be mad; but it is claimed by many physicians that this condition in man is in no wise the result of a poison introduced through an abraded or lacerated surface, but is purely from an overwrought imagination, aided in some cases possibly by the local irritation and the apprehension that the animal was rabid. Dr. Hartshorne says that "the importance of a right popular belief upon this subject is of considerable importance," to which we cordially assent. He insists "that not only is it necessary that every clearly rabid animal should be killed promptly, and every suspected one fastened up and watched in security," but also that "means of prevention should be resorted to at once when any one is bitten." This is all very well. The means generally resorted to and known, are, removal of the part, or thorough cauterization when removal is not practicable. And says that, "should such an idea become prevalent that there is no such disease as hydrophobia in the human subject as appears to be intimated by the article referred to, all such precautions will be neglected at the eminent risk of many lives, which, by the use of such means of prevention, if they were resorted to immediately, can be protected from this truly terrible malady." Dr. Hartshorne here makes an assertion he has no means of proving, and which he knows is contrary to all experience, after the indications of true rabies have become manifest.

The profession to which he belongs has no undoubted case to report wherein their treatment has been successful, by his "means of prevention" or any other means; their only hope is that death will kindly intervene, and bring relief to both the patient and themselves; and not unfrequently the means resorted to contribute to that end.

The writer of this has passed through all of the horrors and treatment incident to the popular belief in this respect. About twenty-five years ago, he was severely bitten in three places, by a dog alleged to be rabid. The hand was covered with blood from the bite, and saliva from the dog's mouth for a full half hour. It was then washed with aqua ammonia fortior and after-

wards with liquor potassa, and then scarified in every direction around the wounds, and placed under the exhausted receiver of an air-pump, and allowed to bleed freely; after which, it was treated by poultices and recauterization, every second or third day for a period of four or five weeks, with a view to keep up a discharge. All expected see a splendid case of hydrophobia!

"But when the truth it came to light,
It showed the rogues they lied;
The man recovered from the bite,
The dog it was that died" (or was killed).

The great anxiety in reference this case induced him to procure all of the medical literature on hydrophobia within his reach. The result was an extensive collection of books, pamphlets and monographs, discussing its various phases, especially in reference to disease in man, then most interesting to himself. The information thus gained tended to increase already existing doubts of the occurrence of the Lysso, or rabies humana.

Since that time, the following three cases have fallen under his observation and treatment, which were conducted upon plans corresponding to his belief.

Case No. 1. Miss Mary R., aged 15, of good health and robust constitution, living on Van Horn street near Linn, in this city, was bitten on the thumb of the left hand by a small dog, which had been running about the street making a peculiar barking, whining noise. From his actions, she thought he had gotten a bone or some other hard substance into his throat. His mouth was open and a viscid saliva was observed flowing from it. In attempting to carry him into the house, for the purpose of examining his throat to see if she could relieve him, she was bitten. A severe smarting and burning followed the wound. The animal was thrown into the street, and was soon killed. In the course of a few days other dogs in the neighborhood became affected in a similar manner, and were also killed. It was not known that any of them had been bitten. A suspicion that the first dog was probably rabid became now quite general, but it was claimed that nothing had been said about it to the young lady. sixteenth day after she was bitten, Mary complained of feeling unwell; the night following she was feverish and restless. When morning came, she did not feel like getting up as usual,

and complained of pain in the left hand and arm, without locating it specifically; there was stiffness of the muscles on that side of the neck. When she attempted to eat, it was attended with great difficulty in swallowing; liquids were offered but caused great distress; when introduced into her mouth with her eyes closed, they were rejected with violence, and a spasmodic effort. She told her mother and sisters that she had hydrophobia, and that she would die.

About 10 o'clock A. M., on the 17th of June, 1854, I saw her for the first time since she was bitten. On entering the room she was thrown into a most violent paroxysm. Her countenance was distorted with an expression of terror and anxiety, with jerking motion, striking, snapping and attempts at biting, which she said she could not restrain. I could scarcely recognize this as the bright, happy face I had been accustomed to see. The head and shoulders were thrown back as if in affright; her eyes were fixed as if staring at some horrid object; with hurried, gasping respiration.

In eight or ten minutes this spasm relaxed, and she disgorged two or three ounces of thick, viscid saliva. She then seemed quite rational until another paroxysm came, which was about half an hour afterward. Paroxysms of a similar character continued to return at intervals of half an hour, an hour or an hour and a half, during the day, and for part of the night. This seem ed a truly formidable case of hydrophobia, and knowing that all such died from the effects of the disease, or from the heroic medication resorted to, or from both combined, and believing that the disease was mostly, if not entirely, imaginary, I determined to carry out a treatment in accordance with that view. the ten years previous I had treated three cases of cholera among the friends of the family, all of which resulted successfully. availed myself of the confidence thus inspired, and assured her that she would not die, and that in all probability that the dog was not mad, but being a very young dog, his teeth had caused these strange actions; and that such was not unfrequently the case during hot weather; and that I would stay with her, and see her through.

At eight o'clock in the evening, it was observed that there had

been an increase of half an hour in the interval between the paroxysms. Seizing upon this as another evidence that the dog could not have been rabid, and that she would get well, she took new courage and at half past twelve she passed into a quiet slumber from which she awoke a few minutes before two o'clock, when she immediately had another seizure which, however, was much lighter than the others-of this she felt assured herself. At four o'clock she slept again until six. When she awoke the sun had been up some time, and was shining brightly into her room, casting a shadow from the curtain at the head of her bed upon the opposite wall, which her imagination conjured into a huge dog. With a scream, she relapsed into another and her last fit, which lasted about five minutes. When she came out of it, on being assured of her error, she became composed. treatment was continued a few days, when she was entirely recovered. She is now married and the mother of several children, and resides near the city.

When spoken to in reference to her experience recently, she declares that she can still, when she desires, see that horrid dog gazing at her. And believes that she could induce the same condition again at any time, in a few days. if she would give way to her imagination.

COLLES' AND BARTON'S FRACTURES OF THE RADIUS.

There are two fractures of the lower end of the radius, which are usually called Colles' and Barton's fractures.

The first (Colles' fracture) was particularly described by Colles in the Edin. Med. & Surg. Journal for 1814, and the latter by Barton in the Phila. Med. Examiner for 1838.

In the former the fracture is most usually transverse, and its most common seat is from \(\frac{3}{4}\) to one inch above the radio-carpal Dec-2

articulation, if it occurs in the adult; but before the age of sixteen, it is more frequently the separation of the epiphysis from the diaphysis. The displacement which ensues is considerable, the deformity being nearly the same in both cases.

In Barton's fracture a portion is broken off from the margin of the articular surface of the radius, and extending through the articular and cartilaginous face of the bone and into the joint, carrying with the fractured portion the styloid process and outer part of the joint.

The prognosis as to the complete restoration of the motions of the radio-carpal joint is less favorable in Barton's than in Colles' fracture, because of the great injury to the joint and rupture of the synovial and articular ligaments.

The displacement which is produced bears a great resemblance to that of dislocation of the carpus backwards, from which it should be carefully distinguished.

In the fracture, the lower fragment is drawn upward and backward behind the upper fragment by the combined action of the supinator longus and the flexors and extensors of the thumb and carpus, and inward toward the ulna by the pronator quadratus, producing a well-marked prominence on the back of the wrist with a deep depression behind.

The upper fragment projects forward, often lacerating the pronator quadratus, and, being drawn into close proximity with the lower end of the ulna, causing a projection on the anterior surface of the forearm immediately above the carpus, from the flexor tendons being forced forward.

These fractures may be distinguished from dislocation by the deformity being removed by making sufficient extension, when crepitus may be detected; at the same time, on extension being discontinued, the parts immediately assume their deformed appearance.

The age of the person will also greatly assist in determining whether it is a fracture or a separation of the epiphysis.

Few fractures have had so many ingenious apparatuses devised for their treatment; yet sometimes, in spite of the utmost care, many cases of these fractures turn out unsatisfactorily.

The incomplete recovery is an important consideration in the

history of these fractures. Care must be taken to see that coaptation is complete, and due attention paid to the faithful performance of passive motion during the entire time of treatment. Even then, in elderly persons, and especially those who suffer from chronic or sub-acute rheumatism, we sometimes find at the end of treatment that the patient has little or no control over the wrists and finger joints; and that this condition is permanent, with subsequently but comparatively slight improvement: and this upon the utmost care upon the part of the surgeon. Dr. J. A. McDonold says in the *Brit. Med. Journal*, Mar., 1873, p. 223, after describing the fracture:

"Accepting the above as the pathological conditions presented to us, we have to consider by what means we may obviate them in endeavoring: first, to restore the form of the radius; second, to bring back its carpal extremity to its proper aspect, forward and inward; and third (as a consequence of the preceding step) to remove the obstacles to the re-union of the opposed surfaces, and, if possible, secure the normal length of the bone (radius) before and behind."

"How difficult of accomplishment this last point is, may be inferred from Dr. R. W. Smith's testimony, that, out of twenty cases of fracture of the lower end of the radius, in none had the normal length been restored; in all the anterior surface exceeded the posterior."

CASE I.—Mr. J. L., at. 38, June 12, 1873. Thrown from carriage, fracturing the left radius about one inch above the styloid process (Colles' fracture).

After reducing fracture, applied roller from fingers to elbow placed the arm in a Bond splint, (which is a thin, flat board, well padded,) with compresses under to press up and out the upper end of the fracture, and one on the outside to press down the lower end or fragment; and applied a second roller over all, flexing the arm in a strip extending around the neck. Gave acon. 200th every three hours.

15th. Was called early. Found patient suffering severely from swelling of the arm, pulse 100. Re-applied as above, so as to give room for free circulation and swelling. Acon. 200th as above.

14th. Passed a comfortable night, pulse 80, swelling diminishing. Re-applied as above. Acon. 200th every three hours.

15th. No pain, pulse 75. Ruta gr. 6.

18th. Doing well, swelling gone, pulse 75. Ruta 6. Took off rollers and splint, applied plaster of Paris matrix to whole forearm and hand, which were taken off every third day and passive motion given to all the joints; and in four weeks all treatment was suspended. Arm, radius and joints perfect.

(The mode of applying the matrix is as follows: Take the arm and apply oil all over it so as to prevent the plaster Paris from sticking to it. Mix up the plaster to the consistence of cream; put a piece of paper on a piece of board. Spread upon the paper the plaster, and before it sets take the arm and lay it in it. Press it (the plaster) up with the paper until it covers one-half of the arm, palmer surface, As soon as the plaster sets, take out the arm, trim with knife the edges, rub on them some brown soap, replace the arm, cover the exposed surface of the arm and edges of the matrix with oil. Mix a new lot of plaster, and apply to the dorsum of arm. When set, separate and trim to fancy; build up for compresses with fresh plaster, and trim to suit. Replace the arm and tie the matrix together with three or four small strips of muslin, and the whole is complete. It can be removed at any time in one minute by untying the strips, and replaced by tying.)

CASE II.—Mrs. H., &t. 45, June 25, 1873. Thrown from carriage, fracturing right radius about one inch above styloid process (Colles' fracture). Treated identically as above. Cured in five weeks, arm perfect.

CASE III.—James, æt. 13, July 8, 1873. Separation of epiphysis, right arm. Treated as above. Splints removed in three and one half weeks, arm perfect.

CASE IV.—George, et. 18, Aug. 20, 1873. Partial separation of epiphysis, carying off the styloid portion of the radius, right arm (a combination of Colles' and Barton's fractures). Treated as above, with success in four and a half weeks; arm perfect.

CASE V.—J. C., ætat 23, Sept. 15, 1873. Colles' fracture Treated as above in four weeks, arm perfect.

CASE VI.—Mrs. C., cet. 44, Oct. 31, 1873. Colles' fracture left arm, still under treatment



I have given acon. 200th until the pulse falls to 80; then arn. 200th until it comes down to 75, and follow with ruta g. 6 until all soreness in the fracture has disappeared. I have made no external application whatever, except to occasionally wash with cold water and soap.

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A NEW METHOD OF PRODUCING LOCAL ANÆS-THESIA.

The interest that has been recently manifested in the profession on the subject of anæsthetics, induces us to take an early opportunity of directing our readers to an important paper, by A. Horvath, of Kieff, published in the Centralblatt fur die Medicinischin Wissenschaften, proposing a new method of producing local anæsthesia. It is a well-known fact, that if the hand be immersed for a short time in ice water, an intolerable pain is caused and the hand has to be withdrawn. In the course of a series of experiments, made in reducing the temperature of frogs by means of cold alcohol, Dr. Horvath observed that no such pain was produced when the hand was immersed in cold alcohol, not even when the temperature was as low as 5° C.

Pursuing the experiment still further, glycerine was found to possess a property similar in this respect to alcohol. Ether, on the other hand, caused pain, the same as ice water, while the pain produced by cold quicksilver was more acute, causing the speedy withdrawal of the finger when plunged into this liquid at a temperature of 3°. It was next ascertained that, when the finger was held for quite a long time in alcohol having a temperature of 5° C., no pain whatever was experienced, and what was a still more remarkable phenomenon, although the faintest touch was distinctly perceived in this finger, yet no pain whatever was experienced from sharp pricks, which in other fingers were sufficient to cause considerable pain. This experiment seemed to show that

the application of cold alcohol had the effect of depriving the part of the special sensibility to pain, without, however, impairing the delicacy of the general tactile sensation, which, as is well known, resides in the superficial integument. This apparent possibility of the artificial separation of these two nervous functions, viz., the tactile sensation and the sensation of pain, and the temporary suspension of the latter, seemed important in a physiological point of view, and also of no small practical utility in allaying certain forms of local pain, more especially that caused by burns and surgical operations. With regard to burns, Dr. Horvath soon had an opportunity of testing the value of this application on his own person, as well'as upon others, and with the most satisfactory results. Not only was all the pain instantly allayed, directly the part was immersed in alcohol, but it was found that the wound very speedily began to assume a more healthy appearance, the surrounding redness rapidly failing. The process of healing seemed to be accelerated. If that theory is a correct one which ascribes the frequent termination of burns to the result of constitutional shock induced by the severity of the pain, in that case the application of cold alcohol, in that it affords the patient an immediate relief from his sufferings, will prove a powerful agent in such accidents in saving life. In like manner, this same application may be found valuable, it is thought, in cases of traumatic tetanus. The method of producing local anæsthesia by the aid of ice, ether and rhigolene has been perfectly understood for many years. These agents have never been extensively employed, however, masmuch as it has been found by experience that the process of freezing the parts is often productive of quite as serious pain as would have been experienced from the operation without the administration of any anæsthetic. The ether spray is found to be a source of embarrassment to the operator, for, if not carefully directed, it is liable to take effect upon his own fingers, bringing on a sudden numbness which is more surprising than gratifying. It can, moreover, be applied to only a limited extent of surface at a time.

The extreme simplicity of this new anæsthetic, the ease with which it can be applied to any part of the body where pain is experienced, or when it is desired to make an incision—all these

circumstances tend to make it highly probable that its employment will ultimately become general, thereby doing away, in a great measure, with the disagreeable and dangerous effects of ether and chloroform.—Boston Med. and Surg. Journal.

REDUCTION OF AN OLD LUXATION OF THE HU-MERUS.

Before the class at the Pulte Medical College on Friday, October 24, 1873, a luxation of the head of the humerus was reduced by Prof. Beckwith, assisted by other members of the Faculty.

Mr. H., of Lawrenceburg, Ind., aged 54 years, about six weeks ago fell from a scaffold raised about four feet from the floor, and struck the posterior part of the humerus, producing a subclavicular dislocation, which was supposed to have been reduced by a competent surgeon at the time of the injury.

It was found upon recent examination that a luxation was still present, and, for the purpose of reduction, was brought before the Faculty and members of the class, as before stated.

After full etherization, extension was made in various ways without success, when the pulleys were applied and forcible extension continued for about fifteen minutes without producing any other appreciable effect than stretching the muscles, the bone still remaining under the clavicle. Finally the arm was drawn along the side of the patient's head, and extension was made for several minutes by three strong assistants, when it was suddenly rotated over the chest with much better success than heretofore achieved. This being repeated for several times, the head of the humerus was lodged in the glenoid cavity.

A pad was placed under the axilla, the arm being elevated; the forearm was bandaged to the chest.

J.

THE Bordeaux Medical states that Dr. Marc Girard, an eminent surgeon of that city, has lately died from a prick of a pin. He was operating upon the shoulder of a patient for a wound in

which mortification had set in, and in placing the last sutures he accidentally scratched his finger. The effects appeared trivial, and the hurt soon apparently healed, but shortly after again inflamed, the poison extending through the body; and a lingering death was the result. M. Declat states positively that there is no necessity for any ill effects as above being caused by inoculation of the blood of either a diseased patient or the cadaver, when so simple and sure an agent as carbolic acid will promptly and almost infallibly arrest them.

A NEW method of dilating strictures has been given: by having a column of pure water raised over the patient, the lower extremity opening into the urethra by means of a glass tube. By turning a cock, the pressure of the water may be regulated. But few realize the power of water pressure. The operator is told to confine the water in the urethra by holding the glans gently around the glass tube. Our experience is that the apparatus works first-rate, except keeping the water in the urethra. It requires more than gentle pressure—violent pressure only securing it water-tight. The idea is a good one if made practically available. But we have tried it, and the tender glans would not stand the pressure.

GREAT men die, and then their bed-chamber discourses become remarkable and acceptable. Nelaton, the distinguished surgeon, having died, his little deeds now receive more prominence than his great deeds during life. Surely rewards in this world are delayed until they serve no purpose as a stimulant to exertion. There is a gloomy satisfaction—the worms will not sicken upon the plaudits thrown upon their prey—why should we? F.

PROF. PANCOAST has recently ligated the common carotid for tumor on the neck and side of the head. It was in a measure successful. Dr. Helmuth performed a perilous experiment before the American Institute, at St. Louis, a few years since, to reduce a tumor by acupressure, passing the needle under the vessels. We understand it was also successful.

Book Antices

A System of Surgery: By Wm. Tod Helmuth, M. D., Carle & Greener, Publishers, Mew York.

The Application of the Principles and Practice of Homopathy to Obstetrics and the Disorders Peculiar to Women and Young Children: By Henry N. Guernsey, M. D. Second Edition: Boericke & Tafel, New York.

Almost simultaneously appear upon our table two ponderous volumes; both old acquaintances, well-known in their infancy, but both so wonderfully changed that we are puzzled to say if we have ever seen them before. They have quite outgrown our recollection in all save their names. And for the sake of "auld lang syne" we give them a hearty welcome and what they have revealed to us since their return shows them to have an increasingly strong claim upon our friendship.

Helmuth's Surgery is one of the two books. With 1228 pages and 561 engravings there must be something in it; and so there is. We have taken a close look of every chapter and find it all worthy of our closest admiration. The fair white paper, the large, clear type and the typographical arrangement of the book, are good. The author has wisely left out all reference to ophthalmology, otology and odontology. If he had also dropped out the chapters on electricity, microscopy and ovariotomy and left these things to specialists, or, dropping the first two, had he given more space to the latter, it would have improved the character of the work. The opening chapters are in the characteristically pleasing vein of the author. Prof. Helmuth is a born teacher and he is peculiarly happy in the manner of his writing. The volume is large, and in its subjects comprehensive, but we have failed to note a chapter that we did not wish were longer. We had almost hoped that the day for voluminous treatises on surgery had passed, and in their stead we were to have monographs on single subjects and those to be treated well-nigh exhaustively. Take, for instance, Erichson's or Gross' two volumes, treating the same subjects that Helmuth does in this single work; they do not seem overloaded with discussion. And any one of the topics discussed may be found elaborated in a monograph covering the more extended details, and therefore, to the student, of higher practical value.

But Prof. Helmuth in treating so many topics within so small a space has exhibited excellent judgment in the choice of language. Matters are plainly and concisely stated and, on the whole, quite satisfactorily. We can but regret that he has not entered more fully into the medical treatment of surgical disease. It is in connection with these subjects, as he discusses them, and by such a man, who is something more than a symptomatologist, who is in fact a practical and experienced surgeon,—that we desire to learn how far our remedies can supplant the scalpel. We have no admiration for theoretical surgery.

Guernsey's Obstetrics is the other of these volumes. We cannot do better than to take the following from the preface:

"In placing before the profession a second edition of his work, the author desires to call attention to the fact that he has endeavored to make it more acceptable and valuable by a thorough review of the entire text of the first edition, by rewriting parts and even whole chapters wherever it was deemed necessary to do so by a recent consultation of the most recent authorities; thus bringing it up to the advanced opinions of the day, and especially by the addition of much new material, chiefly gathered from the writings of experienced homeopathic practitioners, from the valued verbal communications of numerous esteemed personal friends, and from personal experience. While, however, new measures of practice have been introduced, nothing has been recommended that has not fully borne the test of practical experimentation."

The improvements thus made by the author are of the greatest value. In form, feature and matter the present volume is every way superior to its predecessor. We did not feel especially proud

of the first edition. Believing Prof. Guernsey capable of better things, we could but feel a serious disappointment. And yet but for that, we could hardly have had this splendid and praiseworthy work.

In its physiology and pathology of obstetrics, it is fully the equal of any work extant. In the therapeutics of disorders peculiar to women, it is without a peer. The completeness with which remedies and their indications are presented is worthy of special mention. This is perhaps the most valuable of the many excellent features of the book. The department devoted to the diseases of children is doubtless better than anything we have from any homeopathic author on that subject, but we could wish it were better. And we hope it may be eventually detached from this work and enlarged into a separate volume.

We hope all our readers will give Prof. Guernsey's work a careful examination, for they will find it worthy of much higher praise than we have bestowed.

Cleave's Biographies.—The most important work that has made its appearance upon our table is by all odds Cleave's Biographical Encyclopedia of Homæopathic Physicians and Surgeons. It did not steal upon us unawares like the angel of death. Its advent "so long foretold" has been most anxiously desired and we were fearful lest we "died without the sight." Now that it is come, we are compensated for our patient waiting. The externals of the book being muslin and full gilt are quite in keeping with the internals which are calf and full guilt. But we must say, the charming faces that beam from so many pages look innocent enough of the sin of self-praise. The ellipsis of an affix from the title page hardly succeeds in concealing the auto-biographical character of the work.

It is a pleasant fiction, when relating one's own marvelous history, to assume that it is an interested and admiring friend that is telling the story. Far be it from us to object to such a necessary

rhetorical expedient. We like it and the illusion grows upon us as we peruse these wonderful pages. We cannot help admiring the coolness, calmness and self-possession with which these narrators detail the tragic events of their lives. The matter of birth is disposed of with as much nonchalance as though it were an every day affair. There seems an utter absence of all proper recognition of the services of those who were chiefly concerned in bringing about that event.

And the same treatment is made of marriage, as though it were a passing event hardly worth the mentioning. Some even forget to notice the fact at all—a questionable compliment to their better halves.

But none of them fail to make a generous showing of their professional performances. Their abilities, acquirements and successes are all duly and fully displayed, And in this we are more than surprised. It is positively shocking to think we have known some of these parties so many years and yet failed so signally to appreciate them. Clearly we have entertained angels unawares. The price of the book is small compared to the information we thus obtain. Now we know who is the father of Homœopathy in America, and who is the author of our modern surgery, and who made the Homœopathy of the West, and who is to be the professional model for future generations, who it was that fought all our battles and gained all our victories, and, in short, made us all we are or hope to be.

Let modesty blush and welcome! what does she know of biographical matters? We stand by the record. Here for once we see ourselves, if we mistake not a la Burns as we wish others to see us.

But in this goodly company we miss many a familiar name. No doubt when they peruse the pages of this volume they will die of pure envy. We hope they will not say or think anything malicious. Mr. Cleave has only accomplished his labor in part. Let him issue another volume which shall include the present "outs," and let them, if they can, outdo their predecessors. And if any gentleman desires to get into the preface as well as into the body of the work, by consulting the present volume he can see how the thing may be done. Mr. C. has an appreciative mind, and had he

continued this preface to the end of the volume, and excluded all else, its our our opinion the devil and a good many homeopathic doctors would more nearly have gotten their dues.

JOURNALISTIC ITEMS.

The N. Y. Journal of Homeopathy like our own has failed to make connections.

The N. E. Medical Gazette just finishes its IXth annual volume, and the editor, Dr. Talbot, bows himself gracefully out of the editorial chair. We hope this will not lessen the value of the Gazette.

The Medical Investigator completes its Xth year. Mr. Halsey retires from his long and honorable relation as publisher. Dr. T. C. Duncan, the prince of editors, succeeds to the combined duties of editor and publisher. The general index made of the entire ten years' issue is admirable.

All the other homoeopathic journals seem to be doing well and some of them even better. We wish them, severally and collectively, a happy New Year and an increased list of subscribers.

The St. Nicholas, an elegant monthly magazine, the best we ever saw for children, is issued by Scribner & Co., New York. For five dollars you can get the ADVANCE and St. Nicholas for one year.

The Phrenological Journal and the Science of Health are always welcome. S. A. Wells, of New York, is publisher of both and that is saying enough. They can be had at reduced rates when taken with the ADVANCE.

DEATH, taxes and The Annual Record of Homeopathic Literature may all alike be considered inevitable. And without venturing an opinion upon the first two we do not hesitate to express

our gratification at the appearance of the last. The volume for 1873, just received, pleases us even more than did its predecessors. It gives in admirable form "a bird's eye view of the many valuable hints that lie scattered about in our last year's periodicals." It is the valuable part of some twenty publications, and we believe the selections have been made by judicious hands. Every physician's library should have a full set of these yearly compends. It is the best and most positive proof of our growth as a profession. Edited by C. G. Raue, M. D., and published by Boericke and Tafel. Price \$3.00.

Faulkner's Physician's Visiting List: Boericke & Tafel, New York.

This contains a Repertory by Blakeley; Table of antidotes for poisons, etc.; and is suitable for any year or week, and a physician loving order, neatness and correctness will not be without it when he knows its value.

"GET THE BEST." This always means Webster's Unabridged Dictionary. The publishers are now offering a new and improved edition and we need not assure our readers that its excellence is unrivalled. It makes a desirable New Year's gift and an indispensable household article. Its value is for every day and for all time.

RECEIVED: Scudder on Venereal; Robert's Theory and Practice of Medicine.

Miscellaneous.

EUROPEAN LETTER.

ALLGEMEINES KRANKENHAUS, VIENNA, AUSTRIA, November 24th, 1873.

After months' sojourn here in Vienna, and drinking deeply from this "fountain-head of medical science," and appreciating fully such an opportunity, because excluded from the same advantages at home, the inquiries have naturally arisen as to what are the means of advancement, both general and special, at the command of women, not only here, but in Europe at large, over those in America, and how these advantages granted compare with the opportunities that men enjoy who come here from abroad to prosecute their studies.

It was under the reign of Maximilian I, in the fourteenth century, that Vienna arose to be one of the first places in the pursuit of science and knowledge in the south of Germany; and during this period was the "K. K. Universitat" established, and through varying fortunes, in the many eventful years that have succeeded, has it maintained itself and grown into renown and into a supremacy that is world famed, not only from its age, but because of Near the same spot where the building now its erudition. stands, in "University Square," in the "Old Town." was erected in 1365 the first University building. This remained in use until 1754, when a new University building was completed, and this is to be superseded in a few years by another, which is now in the process of erection-having been begun this year at the corner of Alser strasse and Fransen ring. This building will be very near to this Hospital, where many of the "University lectures" are held, in lecture rooms fitted up within the hospital building. From the medical department of this University, in connection with the clinical opportunities of the grand hospitals of the city, arise all the advantages that Vienna affords to the medical student. These are unlimited almost, and were originated, and have been especially fostered for the benefit and advancement of men pursuing the study of medicine. Yet women, who within the past few years have sought admission to these privileges, have not been debarred from them, and enjoy many opportunities in a perfect equality with the gentlemen students, and no place in the world affords so many and such opportunities for women to perfect a medical education already well begun as here in Vienna.

It is quite true that no woman is allowed to matriculate at the University, and so consequently can not compete for the honors of this institution or carry off any blazoned laurels. No matter how industrious in the pursuit of her studies, or indefatigable in her researches, nor how unequivocal her success, she is never allowed the justice of an examination, and consequently no official recognition of her merit as an aspiring and successful student, for she is not a matriculant. But notwithstanding this great injustice, still no place else is she allowed so many privileges and such equal opportunities with men in pursuing her studies as here; so Vienna is likely for many years to be the "Mecca" indeed where women practitioners will come.

That this point of a possible matriculation might be definitely settled and understood during the present Semester, a trio of the lady students sought the Dean, and made application to be admitted as regular students; but the gentlemanly official, in the most courteous manner possible, assured them that he was very sorry indeed that they could not be enrolled, but said there would be no possible objection urged on the part of the University authorities—the Trustees—if the Professors chose to receive them at their lectures, as private students, and as such they would have equal opportunities and all the advantages, in common with gentlemen, to advance them in knowledge. Of course this was a very great point gained; such a cordial assurance from the Dean meant and means a great deal, and it is a concession that has no parallel in America. Think of a lady student in Bellevue, New York, being admitted to Professor James R. Wood's lectures on surgery, to share the opportunities of

education in common with gentlemen, even as a private student, an unmatriculant; why, the audacity of the idea is so preposterous that it is quite sufficient to make one's breath come quick and short, and yet Professor Bilroth, world famed as a surgeon beyond comparison in knowledge, success and brilliancy, admits lady students to his lectures and clinics, and not only admits ladies, but extends to them especial consideration, that they may have a chance to see those operations that they, the women. would be especially interested in. Last winter he had four lady students in his class, with some four hundred gentlemen, and in all cases of special interest he made it a point that his lady students should have the opportunity of seeing—recognizing the fact that those four stood a far better chance of being shoved aside among so many eager investigators, not possessing the muscle and hardihood of their stronger brother students, and to his private lectures were these women repeatedly invited, and invariably to his lectures in ovariotomy. One lady student took the "Operative Course in Surgery," with Bilroth's first assistant, and performed all the operations upon the cadaver with such cleverness and dexterity as to gain the applause from the gentlemen students in attendance, and the approbation from the Doctor that there was no better operator in the class. Not only Bilroth, but Duchick, University Professor in "Theory and Practice," and clinic of "Internal Diseases," admits women as private students, as also Professor Hyrtle, the most eminent anatomist of the age, Professor Arlt and Jager, professors of "Ophthalmology and Aural Diseases," and Professor Weiderhofer, professor of "Diseases of Children." Professor Spathe and Carl Braun only of the University professors refuse women admittance to their lectures and clinics. There has never been any reason specified why they should be excluded here, it seeming to be only an autocratic use of authority on the part of these professors, because they happen to be vested with the privilege of excluding women if they choose. A few years since, Professor Braun admitted to his lectures and clinics Dr. Mary J. Safford, now of Boston, and, it is said, she was so eminently clever, so successful and skillful, as to have alarmed this dear old Professor

as to his laurels; and though he admitted she was wonderful, incomparable, and that he had nothing but the greatest admiration for her and her ability, yet since then he has refused admission to all lady applicants to his lectures and clinics. This would indeed be a sore trial and disappointment if there was not compensation in being able to attend the "course in obstetrics" for midwives. Here, while there are some serious drawbacks in taking this "course," yet the opportunities for learning and for instruction are almost unparalleled in thoroughness and clinical advantages. To avail one's self of this opportunity to perfect a knowledge in this specialty, involves the performance of special duty in the wards, which is not only very laborious, but makes, also, serious inroads upon time, which, I assure you, here with an eager student, is a precious commodity. The "lying-in wards" of the hospital are divided into three clinics, or divisions, with or under Professors Spathe, Carl and Gustave Braun. The two former for the exclusive benefit and instruction of gentlemen students; and the third division, under Professor G. Braun, belongs to the course in midwifery and to the women students taking this course of study. The average number of births in the entire wards is about twenty-five per diem, of which, by this arrangement, the women have one-third benefit only. This course is of five months' duration, and every third week is to be spent in the division on active duty, day and night. The two intermediate weeks, each day from 9 to 12, the lectures from the Professor and an able assistant; and from 4 to 5 each day, the visit through the ward giving rare advantages in a clinical way. The time not taken by the lectures and visits, in this course, during the two weeks out of the division, can be given to special courses, which are constantly in progress; in microscopy, pathology, in skin diseases, in auscutlation and percussion, in laryngoscopy, in diseases of women and in operative courses. So that while women in the specialty of obstetrics are not permitted here to enter upon the study in a perfect equality with the gentlemen students, yet there are rare chances here for her to perfect herself in this branch, even with the odds against her, and find many hours beside, out of these special courses, to select those that her judgment and desires indicate; some of them coming at all hours of the day, from early morning until late avening, thus leaving no hour unappropriated.

To sum up, the advantages and inducements for women to come to Vienna, and the disadvantages she must encounter, being here, are these: The opportunities for study and improvement, and the advantages for clinical observation, are just the same for women as for men, if they choose to avail themselves of them, the one exception being that women are excluded from the obstetrical clinic with men; but here the alternative of taking the course in midwifery makes up for this exclusion. There are forty-four regular University Professors, and of these the trio before named, Braun and Spathe, are the only ones that have yet refused to admit women to their clinics and lectures, with their gentlemen students, to enjoy the privileges in common with them. Beside these forty-four regular Professors there are fifty Prevatdocent, or private teachers, all of them skillful specialists; many of them old men and celebrated, and quite as competent to teach as the Professors. So far as I have been able to learn, and I have taken especial pains to make inquiries and to obtain reliable information, these Doctors and Professors have never refused a lady applicant the privilege of a private studentship—always. however, excepting the trio before-named Professors-and invariably upon finishing a course the Professor or Prevatdocent will give an ample certificate, sealed with the official K K. University seal, so that the benefit of an official recognition is really secured. In the same quiet manner have women here procured a foothold and recognition, and rare advantages, as they have in "the University College of London," and if matters can run on smoothly and quietly for a few years, before our jealous brother professionals recognize the fact, women will have become an integral factor, recognized in their universities. [So, Mr. Editor, we pray you be quiet, and don't spoil our pie before it is baked.] The disadvantages are that, being women, they must solicit privileges. and accept them, as if they were kindnesses conferred, for there is the feeling that all that is granted to women, and that they avail themselves of, are favors conferred, and not rights, which they have in a reasonable and natural manner taken, and so long as this state of affairs exists, women will never have the fullest benefits that are to be obtained, in such a truly royal aud kingly educational institution as this "K. K. Universitat," and so long as they are not allowed to become matriculants they must work at a disadvantage. But with the fullest appreciation of the advantages that are even now allowed them, do they eagerly avail themselves of these privileges, and, in them all, see the harbinger of better days, when there will be a magnanimous and just appreciation from mankind at large of services and capacities, and that there will be no limiting and twharting possibilities because they arise out of womanly lives and organizations.

DR. ELMIRA Y. HOWARD.

A PLEA FOR A POPULAR MEDICAL SCIENCE.

Some months since we attended a public lecture, and found the hall crowded to suffocation with an audience who had come out to hear a man speak who had been so fool-hardy as to spend two long winters at the north pole, bound in by snow and ice. There sat the people entranced to hear about icebergs and floes and frosts, loud to applaud every little act of an Esquimaux dog or a polar bear. And when we noticed the rapt attention of the people and the tireless audience which they gave to the words of the speaker, we could not help feeling a touch of sadness. We remember also to have seen the body of one of these famed explorers carried in costly ovations through the country, greeted with the profoundest respect by thousands of people as it passed on to its final resting place in the tomb. And this too made us sad; not because Elisha Kent Kane and his followers were not real noble heroes, worthy of great praise, but we felt sad because there were men who had been on better expeditions and had accomplished vastly more for the human race, yet of whom the world thought very little. There are men who have explored the mysteries of the human body, who have carefully determined the character of its structure and the laws that govern its use; who have by years of toil found out the conditions of health and disease, and have then freely given all these valuable truths to mankind, only to be cried out at as bone-pickers and grave-diggers. What is the value of an open polar sea or a northwest passage compared with some fact that shall alleviate pain, prolong existence, and add to the happiness of human life?

We could easily get a thousand hearers to a discussion of some political question, while we would be puzzled to get a corporal's guard out to hear a lecture on digestion; yet who can measure the difference of relation these things bear to the welfare of the people? Men are not apt to be long blind to their own interests; still, who can say why theology in the pulpit and theology on the rostrum should continue to sway their scepter over the masses, while medical questions are excluded from "good society?" If theology can boast that she preaches a free salvation, if the great political doctrine of the age claims to make all men equal before the law, what better are they than medicine, whose richest boon is bestowed alike on beggars and kings? Who of us believes that the church through its priests holds exclusive power over the people in all spiritual matters? Who of us believes that our political rights are delegated to a privileged class who are to govern and care for us? Yet here is a subject holding the most important relations to human society, penetrating in its applications every public and private human interest; a subject addressing itself alike to the consciences and understandings of men, yet left by them almost wholly in the hands of a privileged few, and these few the doctors who hold, or pretend to hold, a mortgage on our bodies, just as the devil held a claim on the soul of Faustus. And the result is just as fatal to the welfare of the people as is their loss of political power and religious knowledge. Wily despots, designing priests-using this term in its accepted objectionable sense—and ignorant quacks, are the natural enemies of human weal; but they must ever flourish until an intelligent public in its indignation wakes and crushes them beneath its heel. And just why and how this public sentiment should be aroused, we shall further consider hereafter.

T. P. W.

CAN CHLOROFORM BE USED TO FACILITATE ROBBERY?

With the introduction of nitrous-oxide gas as a preventive of human suffering during surgical operations; with the demonstration, at a little later period, of a similar and even superior property in sulphuric ether; and with the discovery, almost at the same time, of the still more potent anæsthetic, chloroform, medical science took a long and proud stride in its race in the interests of humanity. Since the announcement of the discovery of the virtues of vaccinia by the immortal Jenner, nothing has filled the world with wonder and admiration like the announcement of the discovery of the anæsthetics by Wells, of Hartford, by Morton, of Boston, and by Simpson, of Edinburgh; and these grand discoveries have ever since furnished themes for historians, sculptors and poets. Human suffering and hitherto inevitable anguish were, to a vast extent, suddenly abolished, and humanity rejoiced.

It has been said, and I will not venture to say untruly, that the growth of human knowledge does not advance beyond the reach of corresponding developments of the original propensity to sin; hence, with the glories of the discovery of the anæsthetics just mentioned, arose the idea among the ignorant and wicked, that the state of insensibility they produced afforded the most agreeable facility for all manner of unlawful acts which the instincts of self-respect and preservation would oppose. This was more notably the track in which criminal thought traveled, about the time or soon after the introduction of chloroform.

The fact, publicly proclaimed, that there had been discovered a volatile and potent substance of a most agreeable odor, a few breaths of whose subtile vapors would put the strongest man to profound sleep, was seized upon by the criminal mind as the desideratum. But while—as the lethal agents of crimes, upon which the most thrilling newspaper romances were written, and written

in considerable numbers—these criminal ideas of the use of narcotic vapors were widely practised upon, their application to the narcotizing of persons, upon whom robbery or other crime was to be committed, was comparatively rarely made, a fact which holds good to the present day.

This disproportion between the cases in which an actual attempt has has been made to employ anæsthetics for criminal purposes. more especially chloroform, and the reported cases of such attempts, was long ago quite extensively commented upon by the highest authority, in those days, in the world, at least in England, where this substance was, and since has been, almost exclusively used for surgical purposes. I allude to the late John Snow, of London, who, early in 1850, or a little more than two years after the discovery of the anæsthetic properties of chloroform, wrote that, "in two recent cases of robbery, it has been asserted that chloroform was used to render the victim insensible; and, although no real evidence has appeared of such having been the fact, yet the statement has gained great publicity through the papers, and even the sentences on the prisoners have apparently been rendered more severe by the allegation." He further remarks: "It is not difficult to understand how these reports of the criminal use of chloroform first gained currency. The early accounts of the use of this agent in surgery and midwifery, which appeared in all the papers, contained a description of its fruity odor, and its administration on a handkerchief," nothing being at the same time said of any disagreeable property it might possess, or of any unpleasant phenomena attending its administration, which would tend to caution against its indiscriminate and unskilled employment. words, the romantic aspects of anæsthesia were universally circulated, and its reality quietly allowed to slumber with the medical profession.

Hence, says Dr. Snow, "many persons, as I had experience, entertained the opinion that it might be used for effecting robberies." With this general imperfect acquaintance with the action of chloroform, he thought of the following explanation of some of the alleged cases of robbery while under its influence: It is reported n the papers that a person falls insensible suddenly in the street,

and that on coming to himself he thought he recollected something about a handkerchief being applied to his face, and therefore the insensibility, from which he had just recovered, was attributed to chloroform. I quite agree with Dr. Snow in the opinion that, if such a report as this was anything more than the ingenious invention of the newspaper reporter, it meant to say that the individual in question had taken a fit of syncope or vertigo, the latter, perhaps, of that more permanent variety of dizzy-headedness which is not infrequently met with in convivial persons who sometimes break the silence of small hours of the night with melodious declarations of intention not to "go home till morning." "These newspaper paragraphs, however," said Dr. Snow, "are very-suitable ones for quotation; and, the idea having gained general credence, it is probable that we shall often hear of it from persons who have to account for being in disreputable places and company, and who, being shy of the usual excuse of having dined out, will have a recollection of a handkerchief over their faces." The exactness with which these early predictions of Dr. Snow have been fulfilled is well known to most of the profession practising since his time, and the experiences of the law officers, both in his and in other countries, fully attest the clear sagacity of their The idea, however, took deep hold of the public mind, and grew into such magnitude that, in 1851, about three years after the introduction of chloroform, the subject of its crimical use became the theme of grave discussion in the British Parliament: Lord Campbell having in that year introduced his "Prevention of Offences Bill," one of whose provisions was the making of "the unlawful administration or application of chloroform and other stupefying agents felonious." The following paragraph from Lord Campbell's speech in advocacy of the adoption of his bill. will perhaps convey the nearest to a correct idea of the extent to which the public mind had in that day admitted the possibility of the felonious use of these narcotic vapors, especially that of chloroform.

Notwithstanding the published warning of Dr. Snow that the reported cases of criminal employment of chloroform were generally unreliable and totally fictitious, indeed did not furnish a single

case of its successful criminal employment, Lord Campbell said: "A most respectable physician has done me the honor to write me a letter, in which he states that the fear arising from the use of chloroform in this way is altogether imaginary; that no strong man who makes resistance can possibly be chloroformed. I believe that is true of the strong, I think that with those who are not strong, and not able to resist, chloroform could be employed most effectively for facilitating robbery. It has been said that a person thus attacked might refuse to breathe and thus not inhale the vapor, or might turn away his head; but suppose a handkerchief, wet with the substance, is put to his face and held there, the man must breathe. Indeed, it already stands on record that, since the discovery of chloroform, persons have been convicted, before competent courts, of using that article for the purpose of robbery." It is obvious, from the tenor of this address, that even at that time, while the whole subject was comparatively new, Lord Campbell found himself obliged to abandon the idea that chloroform had been or could be used to facilitate robbery, without the knowledge of the person taking it. This abandonment, however, has not been general, but, on the contrary, the surreptitious application of and unconscious inhalation of the narcotizing vapor of chloroform for criminal purposes is still beived in by a very large number of our people, and the doctrine of its possibility is still far too seriously regarded by our courts.

I have employed chloroform quite extensively for twenty-one years; have administered it to persons of all ages, from a few days to seventy years, to the male and to the female, to the weak and to the strong, to the drunk and to the sober, to the sane and to the insane, to the sleeping and to those awake, and I therefore regard myself as familiar with its action on the human subject in all conditions, This intimate and protracted acquaintance with the subject, a result of much greater experience than Dr. Snow had when he wrote his papers from which I have quoted, leads me to unhesitatingly indorse his statements which were published more than a score of years ago. "It," says he, "can be readily shown that, were thieves and prostitutes to resort to the use of chloroform in the public streets, in the manner we see alleged, the attempt would only lead to their detection on the spot. The sensation of

pungency in the nostrils and throat, that is caused by this vapor when in sufficient quantity to produce any effect on the sensorium is so great and and peculiar that no person can take a single inspiration without being aware that he is inhaling something very unusual. Chloroform, in fact, can never be administered without the consent of the party taking it, unless he be forced to take it, which is the case with children, who are not old enough to be reasoned with. If a child be asleep when the process of inhalation is commenced, it nearly always awakes before being made insensible, however gently the vapor may be insinuated."

I will here remark that the real cause of this general disturbance and waking of the person, to whom chloroform is being given during sleep, is not altogether from the pungent impression of the vapor upon the respiratory membrane, but is to be found in the fact that, if it be in sufficient concentration to produce anæs thesia within any ordinary period, it excites temporary closure of the glottis, and arrest of respiration (Royal Medical and Chirurgical Transactions, vol. xlvii., p. 329).

This result is almost invariable in its ordinary use, and renders the temporary removal of the sponge or towel from the face, in order to allow respiration to be resumed, and the glottis time to become tolerant, a rule in practice. Of the practical truths of these statements no one can entertain doubt who has been much in the habit of using chloroform upon the human subject, or in experiments upon animals. Place a mouse, or rat, or rabbit at the bottom of a tub, barrel, or glass jar, and introduce the chloroform At the first approach of this vapor, which is heavy and falls to the bottom, the animal, whatever may have been its state of torpor before, will at once flee from it, and by every possible means seek to extricate itself from the asphyxiating gas. system of displacing the atmosphere of the room-in which the proposed victim may be lying-by the heavy vapor of chloroform, has not, as far as I know, often been attempted in criminal prac-I will allude to but two instances in which it is alleged to have been practised with success.

The first case is to the effect that a California hotel-waiter has been accused, tried and condemned to years of imprisonment for rape committed, as is alleged, under the following circumstances:

A waiter girl at the hotel slept in a small room, and the alleged criminal, having learned from a druggist that chloroform introduced into the room through a key-hole, by means of a spray apparatus. would render the girl insensible, proceeded to practise upon this assurance. It was alleged that she was rendered insensible by that means, and that the crime was committed. An empty bottle, labelled chloroform, found in the accused's room, completed the circumstantial evidence. The totally absurd character of this allegation is apparent to every one instructed and experienced in the use and in the effects of chloroform. We will suppose, by way of illustration, that the occupant of such a room as this girl is said to have slept in may be anæsthetized unconsciously, by the vapor of chloroform, thus introduced through the key-hole—though I regard it as impossible. But how is the operator, especially if he be an ignorant hotel-waiter, without the slightest knowledge of chloroform, to know when unconsciousness is effected? he to tell when the victim is ready for the breaking open of the door? Would the most skilled administrator of chloroform venture to fix the moment that the occupant of any given room would be anæsthetized by chloroform thus introduced into it? he dare to indicate the time which divides the period of unconsciousness to all outward impressions and violence, or perfect anæsthesia, from that of fatal poisoning from chloroform? he tell the moment that it should be discontinued in order to avoid this fatal consequence?

I apprehend that such as could would be difficult to find.

It is therefore obvious that, if this hotel-servant committed the crime alleged, under the circumstances sworn to, it must have been brought about by a most extraordinary combination of accidents, leaving out the question how he himself breathed, and consummated his crime in the same atmosphere, or rather chloroform-vapor, which rendered his victim insensible, and kept her insensible for an indefinite time.

There are other considerations and physiological facts involved in this history, which make it, to my mind, so improbable that I should need much more than circumstantial evidence to convince me that there is a particle of truth in it. The second case comes to me upon the authority of Mr. J. F. Miller, and, though the crime alleged was not effected by chloroforming the human subject, it is interesting, as showing the application of the agent to facilitate robbery. The circumstance is stated as follows: A watch-dog, having been shut up in a small room which contained a safe, was rendered insensible and harmless by throwing towels saturated with chloroform into the room from a high window, and, after thus securing the dog, the safe was robbed. The facts in evidence were the towels, still smelling strong of chloroform, and the sickness of the dog during all the following day.

While it cannot be questioned that dogs and other animals may, in this manner, be made insensible, there is not the slightest proof that they are ever made so, without an effort to escape from the room in which they are being anæsthetized. They are always conscious, and try to escape, and, were they possessed of the intelligence of the human subject, always would escape, unless bolted in and beyond the hearing of the people living about them. While, therefore, chloroform may facilitate robbery when given in this manner to watch-dogs, it remans to be shown that it is possible to thus use it on the human subject. Upon the supposition that this was a case of the actual use of chloroform to narcotize a watch-dog, it affords the suggestion that, to prevent such results, very free openings through the floor of such rooms should be provided, so that the vapor of chloroform, which is heavy, might run down like water or carbonic acid gas, leaving the air of the room When the vapor of ether may be selected, it. uncontaminated. being light, escapes from the upper parts of the room, and must therefore be introduced at the lower part of the room. I have no knowledge, however, that any criminal charges have been laid at the door of sulphuric ether. But all that has been said relative to the pungent, irritating and suffocating effect of chloroform, is applicable to ether in an eminent degree. Therefore, these being the facts with reference to the vapor of chloroform alone, when introduced into the respiratory track, it may be easily conceived that if to them there be added the towel or handkerchief to the face—the usual method—wet in the cold and irritating fluid, but

few human beings sleep so soundly as not to be awakened by it the instant, if they were not by the vapor alone.

Most assuredly, if it did not produce that result, no robbers need fear them, for they would not be likely to offer any opposition to even the removal of the clothes from their backs.—Psychological Journal.

MEDICAL EXPERTS.

The word expert means, etymologically, "taught by use, practice or experience." It therefore denotes one who has a practical knowledge of some science or art. Now, in the case of the medical expert, this knowledge is only of sterling value to the cause of justice when reared on a solid basis of scientific training. This fact our law-courts do not seem sufficiently to recognize, and it is precisely because they do not recognize it that the question "What constitutes a medical expert?" receives even at this day conflicting answers. Thus, while in some cases it was ruled that, in questions of skill or science, more opportunity for observation was not enough, it being necessary that the witness should have superior skill and scientific knowledge, and also a mastery of the subject; in others, it has been held that practicing physicians without medical diploma or license from an examining board stand on an equal footing in this respect with the most thoroughly educated medical men. And in the Livingston case it was the judicial decision, "that any practicing physician is competent to express an opinion as an expert on a medical ques tion."

A medical expert, properly so called, is one specially qualified to give opinions on facts having a medical nature and bearing. Of course, this definition will exclude all who, though recognized as physicians by the amended statute, are not legitimate members of the profession. Moreover, it will discriminate between

members of the profession itself, and with propriety, I think; for, apart from the fact that some physicians are, by reason of certain advantages of training and observation, more entitled to the position of experts than others, there is no doubt that the interests of justice and the reputation of our cloth require some classification of medical witnesses more in accordance with facts and experience. Presuming this to be true, I may classify them:

- I. As physicians and surgeons. This might answer, though still imperfectly, in countries where medical and surgical practice are conducted separately; but, where such is not the custom, it is open to the serious objection of not being in accordance with fact.
- II. As medical witnesses and medical-expert witnesses. This is not only the most natural, but also the most widely applicable division, being based on a real difference in the character of medical testimony; and, although not generally recognized in our courts of law, it certainly, if unconsciously, influences the weight which judge and jury attach to separate medical testi-Let me be permitted to show the nature of this impor-Medical witnesses testify to familiar medical tant distinction. facts and deliver opinions based on that knowledge of the general principles of medicine which every medical man should have. The value of their testimony will therefore depend on the range of their general medical information and experience, and not necessarily on a minute acquaintance with some special medical branch. On the other hand, medical-expert witnesses testify to special medical facts and deliver opinions on a more or less minute and exhaustive study and experience of some particular medical subject to which they have devoted special care and attention. As an illustration of my meaning, to those to whom it is not already sufficiently obvious, suppose an investigation into an alleged murder by strychnia, and medical men summoned to give testimony. He who has a knowledge of the effects of strychnia and of its obvious properties will testify to these. He will state that it is white, intensely bitter, a valuable medicine in proper doses, a powerful poison in overdoses. And he will tell how much an overdose is, how it causes death, and what diseased appearances it leaves on the body. But, if he

were required to extract strychnia from the body, to prove by chemical tests this substance to be nothing but strychnia, and to explain the comparative merits of these tests, he might decline by acknowledging his special inability. The court would have to seek the opinion of an expert in toxicology, who in turn would testify with authority on this branch from having a special knowledge of it. The former of these would be a medical witness, the latter a medical-expert witness.

There is no doubt, I believe, as to the reality of this distinction nor as to the importance of its full recognition in courts of law. One of the reasons of the dissatisfaction expressed now and then in regard to medical testimony, is the unreasonable anticipation of its performance, leading to the common injustice of expecting an exact and minute knowledge of all medical topics from all medical witnesses. Next to slander, unreasonable expectation is the greatest foe to character. How prevalent is the false notion that physicians have an intuitive knowledge of their profession—like poets, are born, not made—and that "he is no doctor," as it is said, who can't give a solution of any medical question that may be sprung upon him! Nor will this habit of thought excite surprise if we remember how it is kept alive by a certain class of medical practitioners who feign a mysterious knowledge of the healing art. These are the quacks of whom Dr. Parr said that "they endeavor to obtain confidence by pompous pretences, mean insinuations and indirect promises." would press this classification on the attention of legal men in the hope that it may have some weight in influencing the expectations they may in future form of medical witnesses.

Sometimes, as the following example will show, exceptional circumstances have rendered this classification impracticable. In the State of Iowa, one Hinkle was tried for poisoning his wife with strychnia. Two physicians stated in evidence that they had never tested for poisons, though they understood the principles of chemistry and had seen tests applied by chemists. An exception takeu to the admissibility of their evidence was overruled on the ground that "to say that none shall be permitted to give their opinions except those who have given their lives to chemical experiments or those of the highest profes-

sionul skill, would, in this country at least, render it impossible in most cases to find the requisite skill and ability." In reflecting on this decision it is but fair to remember that it was influenced by necessity. Still, in a trial involving so much of last consequence to the accused, a successful effort might have been made to procure elsewhere the services of a medical expert. Even the "highest professional skill" is compatible with comparative ignorance of some special medical subject, and I can not but think it hazardous to admit the testimony of such witnesses to be conclusive on a question of chemistry and toxicology.

Experts are called to explain to a jury the meaning of certain facts which might not otherwise be known. Most trials involve some such facts, and are inconclusive without assistance from expert testimony.

The expert testimony of medical men is the most important of all, for it requires a most minute, varied and extended knowledge; it frequently relates to subjects of an intricate and recondite character; it is applied to the settlement of questions affecting the three great interests which men most love, namely, life, reputation and property.

Two examples will illustrate its great value. The first is an instance of a crime discovered and of the criminals punished, by the instrumentality of medical science, after all ordinary means had completely failed.

In the year 1821, a woman disappeared mysteriously from the city of Paris. A suspicion that she was murdered led to the arrest of several suspected persons, who, however, were soon liberated, owing to want of proof of their guilt. After eleven years the remains of an unknown corpse were exhumed in one of the city gardens. They were examined by Orfila, Chevalier and other famous experts, with the result of identifying them with the published description of the murdered woman, and the re-arrest and conviction of the previously discharged criminals.

The second illustrates how an innocent man was, perhaps, saved from an ignominious death, at least freed from a crushing imputation, by the intervention of the same species of testimony.

Thomas Bowman was accused of murdering an illegitimate child by piercing its head with an awl. The skull was produced in the coroner's court, the hole was plainly visible by all the jury. There was no doubt about the case and the accused was held to stand his trial for wilful murder. The grand jury sitting in Exeter, England, examined the facts, and were about to bring in a trne bill, when Mr. Seldon, a noted surgeon of the neighborhood, heard what was going on. Suspecting some great mistake, he appeared before the jury and asked to see the skull. Perceiving at a glance that the hole was only a natural opening for the transit of a vien, he lost no time in so demonstrating it to the satisfaction of the jury, who thereupon procured the honorable discharge of the accused.

The Quarterly Journal of Foreign Medicine and Surgery, in alluding to the importance of the medico-legal functions, says: "It is such duties, ably performed that raise our profession to an exalted rank in the eyes of the world; that cause the vulgar, who are ever ready to exclaim against the inutility of medicine, to marvel at the mysterious power by which an atom of arsenic, mingled amid a mass of confused ingesta, can still be detected. It does more: it impresses on the minds of assassins who resort to poison a salutary dread of the great impossibility of escaping discovery."—Psychological Journal.

CONCERNING THE EARTH.

We have so much to learn concerning the world in which we live, and are so interested in "the fluctuation of its vast concerns," that we do not often pause to consider the heavens above us, or think of the constitution of the planets and systems to which our own for magnitude is almost a microcosm. How often do we think of the fact that light, which goes seven times round the earth in a second, is three and a half years in reaching us from the nearest star, and eight thousand years in coming from the remotest star

having a sensible parallax? This globe is a big world to us. Very few of its inhabitants, aided by steam, will ever even see a hundreth part of its surface, though they spend their lives in continuous travel; and yet it has but the thousandth part of the volume of Jupiter, which belongs to our planetary system, and a thousandth part of a thousandth part of the volume of the sun itself. How infinitely small it is, surrounded by these giants of the heavens.

But science has her eyes fixed upon these heavenly bodies. Aided by the telescope and spectroscope, she studies their constitutions and their histories, and is confident that she will yet be able to unravel the genesis of our globe through her observations of other worlds than ours. The geologist reads terrestrial history in the strata of the earth's crust, but beyond their record he cannot go. It is probable that to astronomy we shall be indebted finally for a demonstrated theory of the origin of this planet, and a tolerably accurate conception of its ultimate condition. Revelation, theologically construed, gives but vague and confused light, and needs the interpretations of science.

The work of creation, the astronomer tells us, is not ended. Our own globe is simply in a certain stage of development. That it is not what it has been, geology conclusively proves; that it will not remain as it now is, astronomy makes tolerably certain. It was once uninhabitable by man; it will one day, however remote the day, be equally unfitted for his habitation. It will be as its satelite now is, a worn out world, with neither atmosphere or water, nor living thing, "an ancient cinder suspended in the heavens," upon which the sun's rays will fall only to make visible the objects which they strike, all else being obscured in the blackness of unrelieved darkness.

Among the most important discoveries made by astronomers was the community of conditions, under a single code of physical laws, between the planets belonging to our solar system. It was found, for example, that the planets all revolve in one direction, from east to west, and move in elliptical orbits, and approximately in one plane, with a common center, and with the same relative measure of accelerated velocity in perihelion, and retarded motion in aphelion. They are characterized by the same spheroidal forms. Community of motion suggested a common point of impulsion,

and this gave rise to the nebulous theory of the elder Herschell, which La Place adopted; and which Father Secchi declares has been confirmed and demonstrated by the discovery of gaseous or irresolvable nebulæ.

This was the theory which has received confirmation by all later discoveries, and especially by those of the spectroscope. While the uniformity of motion has been demonstrated, that wonderful instrument establishes the fact of similarity of constitutional elements between the sun and the planets. Sodium, iron, hydrogen, magnesium, barium, copper, zinc, calcium, nickel, cobalt, titanium, strontium, cadmium and potassium are the the common properties of the bodies belonging to our system, and probably to all others. "The earth," says Winchell, "is but a specimen of cosmical matter which like a lump of chalk in a museum, exemplifies the constitution of masses of matter removed from actual inspection, perhaps, by impassable intervals of space." To the scientific eye the revelations of the spectroscope make this as certain as the fact to the mason that the brick which he holds in his hand is essentially the same as the ten thousand in the kiln from which it was taken.

But the astronomer does not stop with the discovery of uniformity of physical laws and of community of chemical elements. He reads in the heavens the history of our own world, and finds in planets of our system, in suns of other systems and in nebulous masses the present existence of every phase of development through which the globe has passed in its various geological stages; while in the moon, whose geological periods were, relative to the volume of each body, correspondingly shorter, he sees its destiny fulfilled. In the irresolvable nebulæ he finds the condition of our system when it was a primitive fire-mist, a nebulous vapor. In others the nuclei show the beginnings of systems; in still others the separations from the central mass are detected; and so on, from stage to stage of world-growth or evolution, the process is traced with almost as much certainty as the geological changes produced by erosion and detrital accumulation.

But we cannot follow this interesting subject further, without risk of making this article tedious. It is enough to know that the changes through which a planet passes are so gradual as not to be perceptible from generation to generation. The earth was much

in the same condition as now six thousand and possibly sixty thousand years ago, and inhabited by races not unlike our own, though of a lower order; for as nearly as geology and astronomy, and all other sciences that reach to genesis of things, can come to it, the progression has been steadily from the lowest and simplest organism to the highest and most complex, of which man is the last and best example. That one day the human race and possibly all living organizations will disappear, and the earth cooled, to its center, roll through the heavens a lifeless and deserted orb, need not disturb us, for before it can come to pass, an inconceivable time must elapse, with changes of which we can form no conception.

MEDICAL EDUCATION IN CINCINNATI.

The several medical colleges in this city, having turned out their respective classes of medical graduates and closed the lecture season, as the public already know by the notices of commencement exercises which have appeared within the past few weeks, it may not be out of place to take a retrospective glance at the subject of medical education in Cincinnati, for the better understanding and appreciation of an interest that is not obtrusive, and yet one that is by no means small or unworthy among the many interests of this great and growing city.

The colleges prominent in the education of medical students are the Miami Medical, on Twelfth street, near the Cincinnati Hospital; the Medical College of Ohio, on Sixth street; the Cincinnati College, on George street; the Eclectic Medical Institute, on Court and Plum streets, and the Pulte Medical College, on the corner of Seventh and Mound streets.

These colleges had in attendance at the daily lectures about five hundred and fifty students, out of which they graduated two hundred and twenty, thereabouts, all young or middle-aged men from various places throughout the States of Ohio, Indiana, Kentucky, Illinois, Tennessee, Pennsylvania, Michigan, New York, Co

icut, Massachusetts, Wisconsin, Virginia, North Carolina, Georgia, Florida, and also residents of the Territories.

What is known as "Regular medicine" is taught in the Ohio, the Miami and the Cincinnati Colleges.

Having thus shown, in a general way, the extent of medical education in this city, it remains to consider how it happens that Cincinnati is conspicuous in this branch of scientific instruction.

In the first place, it will not be forgotten that Cincinnati is the geographical center of the largest and most advanced civilization in the United States, and that it is accessible from all points of the compass. In the last place, it possesses the best facilities for clinical instruction on the continent, having the largest and best appointed hospital in the country, and a corps of medical instructors not excelled in general requirements anywhere. Neither Chicago nor St. Louis enjoys any such advantage, nor, indeed, do they pretend to cope with Cincinnati in medical education. The fact is, she is recognized the whole country over as in the front rank in this respect.

The advantages to the city arising from this are perhaps best measured by dollars and cents. To do this we will take the num ber of students who studied here during the session just closed. Of course the figures are approximate only, thus:

Twenty-two weeks at \$7 per week for each student, \$	154.00
Tuition	60.0
Books, instruments, &c	50.00

The advantage of the Cincinnati Hospital, and that which attracts persons seeking medical education, lies in the fact that un-

der its present organization, medical students have the incalculable benefit of clinical instruction in almost every form of disease, and find opportunities for witnessing surgical operations by the best surgeons, and familiarizing themselves with every detail of medical treatment. The vast range of this field of observation for the student will be appreciated by mention of the fact that six thousand patients annually receive treatment in this institution, under the direction of a very large corps of physicians and surgeons.—Commercial

IHE MOTIONS OF THE HEART.

According to the generally-accepted teachings of physiologists, the heart rests after each pulsation; that is, each complete contraction during which the auricles are emptied into the ventricles, and the ventricles into the auricles, is followed by a moment's repose, when the organ is entirely at rest. Dr. J. Bell Pettigrew, in his recently-published lectures on the "Physiology of the Circulation," takes a different view, affirming that the normal action of the heart is a continuous one, and that as a whole it never ceases to act until it comes to a final stop. He says:

"When the heart is beating normally, one or another part of it is always moving. When the veins cease to close and the auricles to open, the auricles begin to close and the ventricles to open; and so on in endless succession. In order to admit of these changes, the auriculo-ventricular valves, as has been stated, rise and fall like the diaphragm in respiration; the valves protruding, now into the auricular cavities, now into the ventricular ones. There is in reality no pause in the heart's action. The one movement glides into the other as the snake glides into the grass. All that the eye can detect is a quickening of the gliding movements, at stated and very short intervals. A careful examination of the sounds of the heart shows that the sounds, like

the movements, glide into each other. There is no actual cessation of sound when the heart is in action. There are periods when the sounds are very faint, and when only a sharp or an educated ear can detect them; and there are other periods when the sounds are so distinct that even a dull person must hear: but the sounds—and this is the point to be attended to—merge into each other by slow or sudden transitions. It would be more accurate, when speaking of the movements or sounds of the heart, to say that they are only faintly indicated at one time, and strongly emphasized at another, but that neither ever altogether ceases. If, however, the heart is acting more or less vigorously as a whole, the question which naturally presents itself is, How is the heart rested? There can be little doubt it rests, as it acts. viz, in parts. The centripetal and centrifugal wave-movements pass through the sarcous elements of the different portions of the heart very much as the winds pass through the leaves: its particles are stirred in rapid succession, but never exactly at the same instant; the heart is moving as a whole, but its particles are only moving at regular and stated intervals; the periods of repose, there is every reason to believe, greatly exceed the periods of activity. The nourishment, life and movements of the heart are, in this sense, synonymous."-Popular Science Monthly.

AUDIBLE AND INAUDIBLE SOUNDS.

The phenomenon of color-blindness is a familiar fact; but an analogous phenomenon, what might be called pitch-deafness, though not uncommon, is not so generally known. By pitch-deafness is meant insensibility to certain sound-vibrations. Prof. Donaldson, of the University of Edinburgh, used to illustrate the different grades of sensibility to sound, by a very simple experiment, namely, by sounding a set of small organ-pipes of great acuteness of tone. The gravest note would be sounded first, and this would be heard by the entire class. Soon some

one would remark, "There, 'tis silent," whereas all the rest, perhaps would distinctly hear the shrill piping continued. As the tone rose, one after another of the students would lose sensation of the acute sounds, until finally they became inaubible to all.

There is reason for supposing that persons whose ear is sensible to very acute sounds are least able to hear very grave notes, and vice versa. Probably the hearing capacity of the human ear ranges over no more than 12 octaves. The gravest note audible to the human ear is supposed to represent about 15 vibrations per second, and the sharpest 48,000 per second.

The auditory range of animals is doubtless very different from that of man; they hear sounds which are insensible to us, and vice versa. Many persons are insensible to the scream of the bat—it is too acute. But to the bat itself that sound must be in all cases perfectly sensible. If, then, we suppose the bat to have an auditory range of 12 octaves, and its scream or cry to stand midway in that range, the animal would hear tones some six octaves higher than those audible to the human ear—two and a half million vibrations per second.

Scoresby and other arctic voyagers and whale-hunters have observed that whales have some means of communicating with one another at great distances. It is probable that the animals bellow in a tone too grave for the human ear, but quite within the range of the cetacean ear.—Pop. Science Monthly.

THE VALUE OF OATMEAL.

La France Medicale informs us that M. Dujardin-Beaumezt, having obtained a large quantity of meal from Scotland, has been experimenting with it, young children being the subjects of the experiments. He observes that without speaking of the bouillies (porridge) and cakes which the Scotch prepare from the meal, it is employed by them as food for young children, although the form in which it is said to be so used appears somewhat nove to such of us as have been a good many years absent from "the land o' cakes," namely a jelly, prepared by macerating a table

spoonful of the meal in a glass of water for twelve hours, then straining through a sieve, boiling till the whole assumes the consistence of jelly, and adding sugar or salt according to taste. According to analysis, 100 grammes of the meal contain gr. 8.7 of water, 7.5 of fatty matters, 64 of starch, 12.2 of nitrogenous matters, 1.5 of mineral substances, and 7.6 of cellulose, dextrine and loss. Its nutritious value, therefore, as food for children, in regard to azotic or plastic elements, and such as are "respiratory," is analogous to human milk, or that of the cow. Besides these it contains more iron than do most of the ordinary articles of food.

M. Beaumetz had fed four newly born infants on the preparation just described, and in all of these with satisfactory results. He considers that in addition to its qualities as food, it acts efficiently against colic and diarrhæa. It enters into the composition of the syrup of Luther, which is said to be much used in Germany. M. Gillette, surgeon of the hospital of Melun, has also given oatmeal "combined with cow's milk," to six children, and his experiments have proved how that food may be valuable in cases where the natural supply of milk is deficient. He adds that the nearer the infant approaches its first year, the more does alimentation by oatmeal appear to be profitable.—Med. and Surg. Reporter

GRATUITOUS MEDICAL ADVICE.

Dr Wardrop was in the habit for many years of giving advice to "poor people" at his house in Charles street, St. James's square, and was induced to discontinue the practice from the following circumstances:—He had been called out one morning early to a patient in the neighboring square. On returning home he saw alighting from a coroneted carriage a somewhat shabby old man, whom he recognized as one of his gratuitous morning patients. He made a detour, and returning inquired of the footman the name of his master, whom he ascertained to be the Earl of —.

When his turn came the pauper patient was ushered into the

consulting room of the great surgeon. Wardrop, in his blant and decisive style, addressed the imposter by his name. surprise of the latter may be conceived. Wardrop, who kept notes of all his cases, ascertained that he had been defrauded of somewhat about twenty guineas. This sum he demanded under a threat of exposure of the culprit, and was successful in obtain-We have heard Wardrop relate this anecdote, and describe in his graphic manner the miserable appearance that the old rogue presented. The circumstances detailed took so strong an effect upon Wardrop that he determined to discontinue a vicious system. Frauds of this description are so frequent since the establishment of proprietary special hospitals and dipensaries that surgeons in general practice, particularly in the metropolis, are robbed of a large portion of their income.—Med. Times and Gozette.

OUR LETTER BOX.

"Boston University School of Medicine. I send you the forerunner of our school. We have had a hard job and expect to still need work in the face of 'Old Harvard,' and we need all the aid and comfort which the profession can give us. So let us bespeak a little in the Advance.

If can make the success we now anticipate it will not only help our cause but the other colleges of our school. We have already raised \$15,000 cash, as a start, and intend to make this \$50,000 before Spring. With this financial basis and the splendid sum on which Pulte College is based, whatever may happen, I am sure these two medical schools will never fail.

L. T. Talbor.

Boston, Sept. 16.

HERE is a letter which we take pleasure in reproducing verbat im. et spellatim, sans punctuatim. We are glad the writer does not belong to our school, but the Pulte will take a contract to teach him something by way of English scholarship, and possibly some-

in the medical line.

MARKLEVILLE IND July 22d 73

S'R BECKWITH & Co

Gentlemen Go to hell & take Your damned Quaik Instetution with You,

"The West" is already Sufficiently Cursed with Quaikery & Impiricism Very Respectfuly

LUNDY FUSSEL'M D

And here is a letter from the Morgue, at New York. Its author is a "demnition moist body" taken out of the East River. It shows some signs of returning consciousness.

Bellevue Hospital Medical College, New York, Sept. 25, 1873.

J. D. Buck:

SIR: Your circular reached me to-day. In looking over your report of "diseases," I notice two of "insufficiency." No doubt it occurred amongst the "professors." (?) Yours etc.,

E. F. STAHR.

MUSCULAR FORCE OF INSECTS.

M. L'Abbe Plessis, in his article in Les Mondes on the above subject, says that, by way of experiment, he placed a large horned beetle, weighing some fifty grains, on a smooth plank; and then in a light box, adjusted on the carapace on the insect, added weights up to 2.2 pounds. In spite of the comparatively enormous burden, being 315 times its own weight, the beetle managed to lift it and move it along. A man of ordinary muscular powers is fully a hundred times feebler in proportion; and had an elephant such comparative strength it could carry away the Obelisk of Luxor, a load of 5,000,000 pounds. Similarly the flea, scarcely .03 of an inch in height, manages to leap without difficulty over a barrier fully 500 times its own altitude. For a man six feet is an unusually high leap; imagine his jumping three thousand seet in the air, over three-fifths of a mile.

SCIENCE AS KNOWN TO THE ANCIENTS.

In Egypt mummies have been found with teeth filled with gold, and in Quito a skeleton has been found with false teeth secured to the cheek bone by gold wire. In the museum at Naples, among some of the surgical instruments found at Pompeii, there is a fac-simile of Sims' speculum. In the ruins of Nineveh Layard found several magnifying glasses.—Medical Record.

PERSONAL.

- Dr. B. L. CLEVELAND, of Flint, Mich., is is off for Europe.
- Dr. F. R. Schmucker has located at 68 Crawford street, Pittsburgh, Pa.
- DR. W. A. PHILLIPS has located in Cleveland, and will give special attention to ophthalmic and aural diseases.
- Dr. H. M. Locke removes to Oxford, Ohio, and will continue to devote himself to the practice of his profession.
- Dr. O. B. Moss has entered into medical co-partnership with Dr. E. C. Beckwith, Zanesville, O.
- Dr. G. W. Righter was married to Miss Mary H. Miller the 13th of last November, and has taken up his residence at Ruddles' Mills, Bourbon Co., Ky.
- Dr. M. MAYER MARIX, of Denver, Colorado, a gentleman well-known to the profession, has announced his retirement from general practice, in order to devote his attention to diseases of the throat and lungs. Physicians can safely recommend their patients to his care.

COMMENCEMENT.

THE Commencement Exercises of the Pulte Medical College will occur on the 12th of Feb. The friends of the college and the profession throughout the country are cordially invited to be present.

J. D. Buck, Registrar.

THE

Gincinnati Medical Sobancs.

VOLUME I.]

CINCINNATI, O.—JANUARY, 1874.

[NO. 11.

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All business communications, relating to the publication or to advertising, should be addressed to Dr. T. P. WILSON, S. W. Cor. Seventh and Mound Sts., Cincinnati, Ohio.

EIGHTEEN HUNDRED AND SEVENTY-FOUR.

From our editorial tripod, we send greetings to all our friends. The largeness of our desires would cause us to give the whole world a joyous All Hail! But our sphere is too limited and humble for us to hope to affect "jarring states" or jostle "rolling spheres." But to whomsoever we may come we hope to bring good cheer.

Medical science is perhaps not the largest fact in the universe. We have no intention of unduly magnifying our profession. We are satisfied that it is daily growing in the confidence and estimation of the world. The shams and frauds that have so long cursed and impeded us are more and more losing their shameless prominence.

Jan-1

623



Besides this, we are substantially progressing. Every year marks varied and important improvements. We may say that every day brings its increase. There was never before so many earnest men working to benefit our art.

In books, we abound astonishingly. Not a hundreth part of the new books are laid upon our table; and yet what we receive commands no small share of our attention. What is actually issued annually is enough to make a respectable library, and yet the market is not glutted, and never will be.

In spite of all this, there are those who see no progress: with them, everything is retrograding. The "Simon pure," in every medical school, are distressed at the degeneracy of the profession.

We commiserate them sincerely. We are glad that we can see that the world, that mankind, that medicine, that everything is growing better and better. And with this faith filling our heart, we give sincere congratulations to all our readers, and earnestly ask friend to lend us a willing hand in pushing on the work for 1874.

THE DEMAND for the ADVANCE by intelligent physicians of medical schools other than our own is largely on the increase. They evidently look to our journal as representative of the homœopathic school. They desire to obtain information concerning our principles and modes of practice. They have come to the point where they are willing to look on the truth on all sides. In short, in spite of their prejudices and professional education they now dare to examine the merits of the long-despised doctrines of Homœopathy.

We have another class of readers whose well-being we desire always to have in view. They are, recent converts to the homeopathic faith. The discovery they have made seems to them as new to all the world as to themselves. Like children in their A B C's, the beginnings of knowledge appears to them the ends of wisdom.

Both these parties take and read and pay for the ADVANCE, and they both look to us for aid. It would pain us exceedingly to disappoint them; but possibly we may. It will not do to be always reciting the alphabet. From words of one syllable are gradually evolved the more intricate uses of language.

If we should spend all our time re-iterating first principles, we would never advance a step in the road to progress. Yet there are men of one idea, and that idea a good one, namely, Homæopathy, who can never write an article, make an address or enter into conversation, without making that idea the burden of their song.

But believe us, the world has largely outgrown the need of this. The time has passed for such things filling so large a space in our conventions and journals. Beginners and seekers should of course give their at ention to elementary treatises. We have plenty of such works and we commend them to all who desire to get at the foundation of our system.

But, good friends, do not expect us to load our pages with things that have been uttered a thousand thousand times and which can be found written in books by scores of able authors. We do not propose to discard or neglect elementary facts and principles; but we shall not constantly harp upon them.

IN ANOTHER PLACE may be found the report of a medical convention held in Franklin, Pa. It was composed of eclectics and homœopaths who, without surrendering their mutual preferences, met for mutual comparison of theories and practice.

The attendance was large and the proceedings very satisfactory. The intelligence, carnestness and liberality of the members were worthy of all praise. A few straight-laced persons of both schools refused to join in the convention. One gentleman went so far as to say that he would not be seen in Franklin the same day members of the other school were in town.

Another privately poured out his wrath upon the writer, because he would consent to address such a convention. He even intimated that the motive lay in the fact of our being a homeopathic "sore-head." Another was indignant because we did not go before such a convention and sing the good old homeopathic song. It was monstrous that we should have done anything beside lauding Hahnemann and Homeopathy.

But fortunately we were not, and never expect to be, influenced by such ideas of courtesy toward medical men of other schools. The plan was certainly novel, and due to the fertile brain of Dr. J. C. Boreland, of making the chief features of the convention clinical. The unexpected and pleasing success of the plan will doubtless lead to its repetition. And we hereby hold ourself in readiness to meet any convention of medical men and women and hold for their benefit and ours a free clinic.

Many of our county and congressional district societies would find the spirit and number of their gatherings largely augmented in this way. We presume that a number of surgeons, specialists and distinguished physicians in our large cities might be found who would be willing to aid in such a work.

AS OTHERS SEE US

The following from the British Medical Journal, we take pleasure in reproducing because it fully answers Burns' celebrated prayer.

"O, wad some power the giftie gie us, To see ourselves as others see us."

"We had occasion lately to point out that homoeopathy, which had begun as a delusion, is now ending as a fraud. This also appears to be the verdict of the Clinical Society of London, delivered on the occasion of an interesting paper by Dr. George Johnson."

"Dr. George Johnson has the art of provoking interesting debates; both the Clinical and Medical and Chirugical Societies owe to him some of their "best nights." The clinical lectures and the papers of this accomplished physician have always the quality of novelty and sterling thought. It is always either a new fact or a new thought which Dr. Johnson contributes. His paper on 'Homœopathic Poisoning by Camphor, was one of the least elaborate of his contributions to medicine; but he rightly judged that it had considerable collateral interest, and it made the Society the scene of an interesting debate. It has long been known to practitioners in London that persons practicing pseudo-homœopathy,

and catching the sunshine of whatever fashionable notoriety attaches to that as to other delusive innovations, have in fact long since abandoned all scientific claim to be considered as the apostles of a theory, and have been in the habit of administering the time-honored medicines in time-honored doses, and on the ordinary common-sense principles embodied in the maxims, Contraria contrariis curantur, and sublata causa tollitur effectus. We have all of us heard of, and most of us have seen, patients who, under 'homæopathic treatment,' have been leeched, poulticed, fomented, and even blistered; who have had opiates administered to relieve pain, purgatives to remove constipation, iron to remedy anæmia, strychnia and phosphorus to cure nervous paresis or neuralgia, and so on through the whole pharmacopæia and through the whole range of disease. It is less generally known, but is still known to a great many, that homeopathic pharmacy has undergone a corresponding transition. No doubt there are staunch homeopaths to be found of the old deluded sugar-plum school; and there are amateur homœopaths, deluded unprofessional persons, to whom nothing stronger than sugar-plums can be entrusted for their zealous and misguided ministrations. But these are the neophytes. Ministrants behind the veil practise other mysteries. sugar-plums, of absolutely neutral character, and chemically innocent of anything but starch, sugar and dextrine, are the pellets with which the public are encouraged to play. The enlightened homeopathist of the present day takes the drugs of rational medicine and concentrates them to the furthest extent to which modern chemical skill can furnish the means, and administers them in single drops, apparently in order to maintain the appearance of practising the old delusion after the old seeming method. precautions are taken to prevent neophytes from cutting their fingers with these sharp weapons. Persons now asking for the "strong tinctures" and the mother tinctures of nux vomica and belladonna are politely informed that they can not be furnished without a doctor's order. Reason enough there is for this precaution. Dr. Stewart mentioned at the Society, in the course of the discussion last Friday, that he had occasion to order 'tincture of strychnia" for a lady who mentioned that she had some in the house. He suggested, accordingly, that she should take ten drops at stated hours. She mentioned, however, that it was homœopathic tincture, and so strong that three drops was a dose. Cases in which severe twitchings have followed the domestic use of one dose of a homœopathic tincture of strychnia, in which belladonna poisoning, with mania lasting for several days, followed the use of a homœopathic tincture of belladonna, and in which dysentery followed the use of homœopathic aperient drop, (probably croton oil), are within our own knowledge. The epoch of dynamization, of cure by the imperceptible action of inappreciable doses, has merged into a period of concentration and of return in secret to the ancient paths of medicine, trodden over under the disguise of the old war paint, and with the old outery."

"There is no question that the homocopathist is a much more dangerous person under his new than in his old disguise. Alkaloids are more dangerous weapons than sugar pellets. The most strenuous efforts will not very long suffice to keep the young amateur homeopathist in the dark, and induce him or her to rely for mild domestic ailments on starch and dextrine in globule, put up in variously labelled bottles. The course of nature will do much for The study of the natural history of disease, anxious relatives. and of the tendency of disease towards spontaneous cure, has been largely aided by the earlier homocopathic efforts; and for this, as for their earnest though overstrained and delusive protests against anything like poly-pharmacy, we owe them thanks. But this is a vein which may be worked too freely. It can not, as they and their patients have found to their cost, be followed with invariable success. Mothers will sigh for the mother tineture; for the tineture of aconite, of which a drop every hour allayed fever; for the nux vomica, the belladonna and the jalapine; and confounding the plaything with the poison, accidents will happen and the fraud will appear. Mr. Brudenell Carter told, at the Society, an amusing story of the customary practice of a wholesale homœopathic purveyor of globules and his ways, which were dark. not long since appeared in print, without authority, and we are glad to have his authority to a statement which is of great value when so authenticated. We are favored by Dr. Alfred Swaine Taylor with a further communication to the like effect, and of an extremely decisve and weighty character. He has many times

examined homœopathic globules, and, in general, has found them to be composed of sugar and starch only—the sugar, sometimes cane or sucrose, and sometimes sugar of milk or lactose."

"In Dr. Smethurst's case, Drs. Taylor and Odling examined sixty-four small tubes of homocopathic globules, averaging fiftytwo globules to a grain, and including, as would appear from the attached labels, every variety of mineral and organic poisons and medicines-arsenic, antimony, charcoal, sulphur, arnica, strychnia, They satisfied themselves of the absence of anv trace in the globules of the substances mentioned; for all the most delicate tests gave negative results. They then mixed up some thousands of the globules with distilled water and drank the mixture between them. No effects followed. They used hundreds of the globules in testing, and could easily have found the 1.4000th part of a grain of arsenic or mercury. As their tests gave no indication, it was quite obvious that if labels dropped off, or bottles were jumbled together, or the manufacturer put by mistake the arsenic label on the strychnine bottle, or vice versa, no one could find out the mistake. In those days no homœopathist, unless he himself prepared the globules or powders, could be sure of what he really was giving the patient; and we have yet to learn that there is greater security for the community at the present time. Perhaps the public analysts will look to the matter. There is here an obvious source of public danger which needs to be guarded against. Homœopathists have, in the words of Dr. George Johnson, 'passed from the irrational and ludricous extreme of infinitesmal dilutions to the dangerous extreme of the greatest possible concentration of active and poisonous drugs.' Hampered by their partiality for infinitesmal doses, they usually prescribe none but As Dr. Stewart expressed it, being identipowerful medicines. fied in the mind of the public with their own absurdity of infinitesimal doses and being unwilling publicly to renounce it, they have recourse to concentrated tinctures, in order to produce an appreciable effect by very minute doses.' Evidence was adduced before the Clinical Society, of this concentration of strength in modern homeopathic tinctures, solutions, powders and globulesbut especially in the tinctures. The public are kept ignorant of this change, and are using the potent poisons as though they were the original trillionths, which might be either charcoal or arsenic, and might be taken with equal impunity, in doses varying from a globule to a malt-shovelful. Already serious results, even death itself, have arisen from this ignorance of the changed conditions of the case. It were a charity to warn the deluded disciples of this fraud of the dangers they run. Homocopathic medicines, made according to the old plan, can be of no use; when manufactured after the modern fashion, they are the most dangerous (because the most concentrated) medicines which can be handled. The one is a fool's bauble; and the other is a double-edgod sword."

"It will, of course, be urged by the advocates of homœopathy, that these charges were advanced at the Clinical Society by practitioners interested in the overthrow of the system. We reply, that they were made by men who have the discovery of truth for their object, and who would practice any mode of cure could they ascertain that its principles are based upon sterling facts, capable of standing the test of experiment. They fulfil their duty now in denouncing the fraud, as they fulfilled their duty before in contemning the delusion which is known as homœopathy."

SOMNAMBULISM.

That a person deeply immersed in thought should walk along in a state of unconsciousness or, rather, in a condition wholly oblivious of surrounding objects, from the frequency of the occurrence excite no surprise; but that any one should go through a series of complicated actions, when fast asleep, which seem to demand the assistance of all the senses, awake and alert to the ordinary impressions, is indeed most marvelous. Less to to endeavor a solution of the problem or account for this mysterious state of being than to arrange such a series of facts as may help further inquiry into the subject, we shall proceed to

consider some of the phenomena and group together in consecutive form several circumstances regarding somnambulism; premising, however, that if we avail ourselves of cases which the reader may before have met with, it is to throw light on what we may perhaps call the pathology of this interesting but very obscure affection.

Somnambulisn is considered by all medical men as a peculiar form of disease. It seldom manifests itself before the age of six, and scarcely ever continues beyond the sixteenth year; most generally it passes away during the early period of adult life. It depends physically upon the susceptibility or delicacy of the nervous system; and on this account females are more liable to it than males, and its earlier manifestations are in the young greatly more than in mature age. It is induced mentally, as far as observations may prove, by any violent and profound emotion, as well as by excessive study and over-fatiguing the intellectual faculties in all persons subject to its visitation.

Whatever may be the cause of the affection, somnambulism frequently assumes different degrees of intensity and irregular periods of return. The first degree evinces itself by more or less talking by the person, at stated intervals in his sleep; this phenomenon seems to return periodically, owing to circumstances—perhaps two or three times only in a month. This stage is also marked by an inability to open the eyes, which are closed and remain as if glued together. On the other hand, the vocal powers appear to be completely under the power of the individual; and it is a curious circumstance, that persons for the most part express themselves with considerable facility, although it is observed, in sleep-talking, that the intonation of the voice differs widely from that in the waking state. Mental anxiety will, almost at any age, give rise to sleep-talking. The ideas of children during sleep are often very vivid; nor is there anything more common than to hear them utter exclamations of distress, connected particularly with any fear that may have been unwisely impressed on their waking minds. The case of a little boy came lately under our notice, who excited the most alarming symptoms, sobbing, screaming and imploring help, under the impression that he was being pursued by gipsies—in

consequence of some foolish person having frightened him before going to bed with tales of the stealing of little children by this vagabond people. Very much convulsed inwardly, he was with difficulty awakened, and for some time afterward remained in a state of agitation bordering on delirium. Assuredly parents cannot be too careful in endeavoring to make very young children go to bed with composed and happy minds; otherwise they know not what hideous phantom may draw aside the curtain of their sleep and, by terrifying the imagination, produce fits that may prove incurable in after life. We believe it is quite possible that epilepsy itself may in this way be produced in children.

In schools, sleep-talking is very common; anxious pupils in their sleep will frequently repeat a lesson they cannot remember when they are awake. Dr. Adam Clark tells us that he overheard his son, in sleep, repeat a Greek verb which he was endeavoring to learn, and which, the following morning he was unable to remember. This is a curious fact—he knew in sleep what he was unable to comprehend when awake; the faculty of memory, however in a state of somnambulism undergoes, it would appear, many singular modifications. Thus persons who talk in their sleep, may by conversation, be brought to remember a dream within a dream; and it is very common in the higher stages of somnambulism, for a person to recollect what happens in the preceding attack, and be unconscious of any interval having elapsed between them.

A young lady somnambulist is mentioned by a recent writer, who in one of her paroxysms of sleep-talking, was guilty of an indiscretion, which she had no recollection of in her waking-hours; but, when she re-entered the somnambulistic state she communicated all the circumstances to her mother. The case is related by Treviranus, of a young student who when he fell asleep, began to repeat aloud a continuous and connected dream, which commenced again precisely where it left off the preceding night.

One of the most curious and, indeed, inexplicable phenomenon connected with somnambulism is, that persons in this condition

in some way seem to derive a knowledge of surrounding objects independent of the organs of the external senses. We were acquainted with a young lady who was accustomed to sit upon her bed-and recite poetry in her sleep; on one occasion she had been to a ball; and after she had returned home, and was in bed and asleep, her mother went quietly into her room, and taking away her dress and gloves deposited them in another room. Presently, the fair somnambula began as usual talking in her sleep; her mother answered her; and at length asked, "But what have you done with your new ball dress?" "Why, you know," said she, "you have laid it on the couch in the drawing-room. continued the mother, "but your gloves-what have you done with them?" "You know well enough." she answered in an angered tone, "you have locked them up in your jewel-box." Both answers were correct; and it may here be observed that somnambulists, if equivocated with in conversation, or in any way played upon, will express themselves annoyed, and betray feelings of anger. The truthfulness of sleep-talking may, we apprehend, always be relied on; in this state there is no attempt at evasion; no ingenuity exercised to disguise anything. ter-mind of Shakespeare—which seems to have devoured the secrets of nature, and illustrated scientific principles before they were discovered by philosophers-recognized this fact, in making Iago thus rouse the jealousy of Othello:

"There are a kind of men so loose of soul That in their sleep will mutter their affairs;—
One of this kind is Cassio.
In sleep I have heard him say, 'Sweet Desdemona,
Let us be wary.'"

Hitherto, Othello had borne up manfully against the cruel insinuations of Iago,—but this sleep revelation carried with it irresistible conviction. Upon the same principle, Lord Byron found the story of "Parisina."

Although in the higher forms of somnambulism, the vivid dreams of the sleeper have a tendency to agitate, make restless only; whenever the state of hypnotism becomes more intense and the sleep very dull and profound, a striking change is at once manifested. The voluntary muscles of the limbs are excited into

action; the somnambulist rises from his bed; dresses himself, and in pursuit of his dream imagery, walks and wanders about, or sits down to steadily execute some task; which, however, difficult in his waking moments, strange as the phenomenon may appear, he now accomplishes with the utmost facility. The condition of the body, now, in a physiological point of view, becomes a strange and solemn mystery; the eyes are open, but, at times, insensible to the impression of light; the portals of the ears are open also, but the discharge of a pistol in close proximity will not, in many cases, awake the sense of hearing; the sense of smell is equally impaired; and that of taste likewise becomes perverted. or, perhaps, entirely suspended. The sensibility to impression. whether hurtful or otherwise, made upon the body in the somnambulic state, is often remarkably diminished, and for the time being, partially, or it may be wholly abolished. In the case of a female somnambulist described in "The Philosophy of Natural History," by Dr. Smithe, he tells us that, when she was in one of her paroxysms, he ran a pin repeatedly into her arm—but not a muscle moved, nor were there any symptoms of pain discovera-Here we may observe an important and interesting psychological fact, that, as a general principle, in proportion as the mind concentrates its powers, and energizes itself within, the sensibility to external impressions diminishes. Wrought up to the highest pitch of a resolute purpose by the engagement, and the consciousness of facing death, the soldier in the heat of battle may receive a dangerous wound, and yet rush onward not knowing he is hurt. Macleod relates the case of an officer who. commanding in one of the fierce battles of the Crimea, had both legs carried away, and who, owing to his intense pre-occupation of mind, was not aware of the injury he had received, till he tried to rise.

Man is probably the only being in whom occurs a sense of apprehension, on looking from a highth, from crag, or cliff, or narrow ledge; the stag, the goat, the antelope will gaze unmoved down the tremendous chasm of the deepest Alpine precipice; but in the human subject, the nervous power recoils in dismay; the circulation of the blood, on a sudden, becomes irregular, and lacking in its wonted supply to the brain; dizziness ensues, and

a total loss of command over the voluntary muscles. This disturbance, undoubtedly arises from mental alarm, which modifies the impressions received by the eye, which no longer correctly estimates the relations of distance. It is related by Wilkerson, that a blind man, who was the scientific and philosophic Mr. Goff, ascended with him to the summit of one of the Cumberland mountains; and in walking along, he described to him the fearful precipices which he had pretended surrounded him; but soon he repented his inventive, picturesque desciption, for the blind man mentally affected by his supposed peril of his situation became suddenly dizzy, and screaming with the apprehension that he was stumbling down the rocks into the abyss below, fell upon the ground.

In the case of the sleep-walking somnambulist, upon dangerous highths, there is none of this apprehension or fear. In his case, the unconsciousness of danger, is his best protection against it. The mind is intensely absorbed in the object pursued; all the muscular movements are performed with confidence, and with unerring precision; and under these circumstances the gravitation of the body is supported on the most tender basis. Not only are the mental powers intensified in this state, and concentrated within, but the physical energies are unwontedly increased. We were once acquainted with a young lady who used to steal out of her bed during her sleep, and by great muscular exertion place herself in situations that would be wholly impossible for her to accomplish when awake; one feat consisted in making her way to the attic of the house, through a scuttle in the ceiling, placed at a highth of eight feet above the floor, and this without other aid than that afforded by the angle formed by the projecting chimney and wall of this room.

In the Bibliothe'que de Me'dicine we find the account of a somnambulist who got out of his bed in the middle of the night and went into a neighboring house, which was in ruins and of which the bare walls, with a few rafters running between them, alone remained nevertheless, he climbed to the top of the wall and over the rafters to the opposite side, without losing his balance or missing his hold.

It is a well-attested fact, that somnambulists will maintain their footing in the most perilous situations with perfect safety, . so long as they remain in a state of somnambulism; but the moment they are disturbed or awakened in such positions, they fall into confusion, losing instantly their self-position. A case in illustration occurred in the south-western portion of the State of New York. A young man in his somnambulic wanderings at night had been often followed from the house, across a field. to where a large tree leaned far over a running stream of moderate depth. Up the tree he would climb, and clamber about among its branches far out over the water; then descend from the tree, make his way back across the field to the house and to bed, profoundly unconscious of all that had transpired. After mature deliberation, his friends determined to try the effect of an experiment, and one night, while he was on his perch, they awoke him suddenly from his somnambulic sleep; with a startled scream, he dropped as if shot and fell into the water below, and was taken out in a state of terrible alarm. Although a doubtful and dangerous remedy, in this instance it resulted in breaking up the habit of sleep-walking.

A young lady was observed at Dresden walking one night in her sleep upon the roof of a house. An alarm being given, crowds of people assembled in the street, and beds and mat-'tresses were laid upon the ground in the hopes of saving her life in case of her falling. Unconscious of danger, the poor girl advanced to the very edge of the roof, smiling, and bowing, and occasionally arranging her hair and her dress. The spectators watched her every movement, with dread expectancy and bated breath. After passing along thus unconcernedly for some time, she proceeded towards the window from which she had made her exit. A light had been placed in it by her distressed family; but, the moment she approached it, she started, and, suddenly awaking, fell into the street and was killed upon the spot. Upon this incident, Bellina has founded his charming opera of "La Somnambula." C. C. Bronson.

Surgery.

HYDROPHOBIA—A DISEASE OF THE IMAGINATION.

READ BEFORE THE CINCINNATI HOMEOPATHIC MEDICAL SO-CIETY, OCT. 7, 1873, BY WM. OWENS, M. D.

CASE No. II. Mrs. Mary M., a patient of Professor Pulte aged about 32, of full habit, a remarkably beautiful, healthy and robust woman, residing on Seventh street near to Walnut, was bitten on the 9th day of June, 1869, by a small Scotch terrier dog, a great favorite of the family and her constant companion. She noticed certain strange actions on the part of the dogrunning about the house from room to room. Meanwhile, he kept up a whining, meaningless look. She attempted to caress him, which he resented by giving her hand a sharp snap wounding it in two places, between the thumb and wrist. The dog was immediately killed, under the impression that he was mad. During the day she called upon Professor Pulte and related the circumstance, but did not seem to think much of it. She was advised to have the wound cauterized and poulticed, which was accordingly done; the cauterization to be repeated day after day until a free discharge was secured, and afterward often enough to keep it up. Medicines were administered, with the hope to prevent rabies if the dog were really mad.

On the eighth day after the bite, while the lady was making her toilet, she was taken very suddenly with sharp, darting pains in the bitten hand, extending up the arm to the shoulder and base of the brain. This was followed by cramps and drawings in the back and the limbs of that side (the right.) Prof. P. was immediately sent for, and in less than ten minutes was in the lady's chamber administering the appropriate remedies for a

supposed case of hydrophobia and to allay apprehension as to the cause of the trouble. The following day Prof. P. called upon me to obtain my views of the disease, which were frankly given. He seemed to be fully impressed with the idea that he had a genuine case of hydrophobia to deal with and promised that, if he could obtain consent, I should see it.

Accordingly, about 9 o'clock P. M., I was notified that I could see the lady, and that Prof. P. was waiting, and to come as soon When I entered the room, she had been quiet a few minutes, and so remained for about half an hour. become known that a case of hydrophobia was under treatment on Seventh street near Walnut. The reporters for the daily press were on the lookout for an item. One of them found the place and forced himself into the presence of the patient without ceremony. Instantly she was thrown into a most violent convulsion; her hands were raised, eye-balls protruding, her head and shoulders thrown back as if in the most horrid af-She threw herself toward the wall, it required the strength of two very stout men to retain on the bed. struck, snapped and bit at everything and every person. had now been unable to swallow anything liquid for a period of thirty hours. In her conscious moments she would beg for water or some liquid to drink, which, as soon as offered her. was rejected, and generally followed by seizures more or less violent, which, if once witnessed, could never be forgotten.

A plan of treatment was agreed upon and the patient left in my charge to carry it out during the night. Before morning the patient had taken a pint of Bourbon whisky and a cup of warm tea. The paroxysms continued during a greater portion of the day following. She breakfasted at 10 o'clock on coffee and toast. The treatment was carried out for five or six succeeding days, when the patient was left in the hands of her own physician, Prof. Pulte. She made a good recovery and was well when last heard from, two years afterward.

CASE No. III. (We give it in his own words.) A physician, aged about 37, living in a neighboring city, was bitten on the thumb by a bitch kept about his stables and, as it was not thought that she was rabid, no particular attention was paid to it, and it

was allowed to heal. On the evening of the ninth day, having felt as well as usual, when about to retire he was suddenly attacked with a severe pain in the bitten thumb, which instantly passed up the spine, and thence into the brain, producing a violent nervous convulsion for a few moments, with a disposition to snap and bite. After about two or three minutes it passed off and he felt perfectly well again, but could not account for this sudden strange feeling. In about five minutes the same pain returned, but it was noticed that this time it commenced in the cicatrix of the bitten thumb and came with more force than before, producing slight spasm and still greater disposition to snap and bite and to grind the teeth, which were entirely beyond his control, causing him to fall to the floor. This attack lasted about the same length of time as the others. When recovered from this, he remembered that this was the ninth day since he was bitten. While in the conscious state, he requested his wife to remove all water and everything of a liquid character from the room and to get him certain remedies, fearing that this was hydrophobia and that the dog was mad. In a few minutes another and a more severe attack came on, greatly prostrating him; yet, in the intervals of consciousness, he states that he knew everything that was done or said and was able to prescribe for himself and direct everything all through his various attacks. The attacks returned every few minutes for about five hours, under the use of bell., lachesis and hydrophobin, they were arrested, the pain passing down the spine to the loins and hips and from thence to the knees. In about three days these conditions all passed off and he was able to attend to his business again.

From the first, each attack became more severe, the pains originating in the hand and passing to the brain, and then the paroxysms would become so violent that it would require three or four strong men to hold him on the bed. Each series of attacks would last from five to six hours, with short intervals between each paroxysm, during which time he would be perfectly conscious, telling those around him what he wanted them to do, fearing that he might injure some one. In every instance, when the pain left the base of the brain, it passed down the Jan-2

spine and finally to the knees; when, in about twenty-four hours, it was over.

These recurrences took place about every nine to eleven days from about the middle of May to December 10th, 1870, when they ceased, and he seemed to be restored to his usual good health. The remedies which he thinks were of most service to him were bell, lachesis, hydrophobin and arsenicum—all high potencies.

I would remark that within a few weeks, there has been a tendency to a return of the same old symptoms in this patient. In reference to cases one and two, the dogs had strongly marked symptoms of hydrophobia. The destruction of the dogs before the matter could be fully determined by satisfactory observations and tests, is much to be regretted in behalf of science. The parties bitten had all the symptoms usually witnessed in patients said to be laboring under that malady in its most violent forms. yet are alive to-day. In reference to the first, other dogs in the neighborhood were affected in a similar manner, though it does not appear that any of them were bitten, or that they had the disease beyond a doubt, but the probabilities all point in that di-In the second case, it is not known that the dog had been on the street, except in the care of his mistress, nor that any rabid animal had recently been seen in the city. If it were a genuine case of hydrophobia in that dog, it was no doubt of spontaneous origin. If neither of the dogs were mad, then we have two splendid cases of simulated hydrophobia disease. On the other hand if one of them, or both, were mad, and the disease was communicated to the patients and both recovered, then we have the distinguished honor to report the first cases on re-We think the dogs may have had rabies, but the persons cord. had not.

The third case occurred in a man of very nervous temperament, of broken health, and who had exhausted himself by continuous hard riding in his practice. The bitch that did the biting had been secluded for several days on account of the promiscuous company she had attracted, and was probably affected with "furor uterinus."

Had any or all these cases been recognized as hydrophobia and treated by the usual means, there is but little probability that a favorable result would have followed. This would have been the unfavorable sequence of a general prevalence of a belief in existence of such a disease and its heroic medication. If a belief that Lyssa affects mankind, and that all well defined cases prove fatal, what is gained by it, be it true or false? As matters stand all genuire cases die, and many doubtful are aided to that end by fright, heroic medication, bleeding, cauterization, etc., etc. If a contrary opinion prevailed, and was as firmly implanted in the public mind as the popular one has been, all of the latter class would be saved and we should have much more hopeful condition of the former, to aid us in establishing recovery, if such a thing be possible: and all would be saved the horror of continuous apprehension of an outbreak of the disease for months and vears afterward.

Three cases of this alleged disease occurred in our city about three years ago. It was not my fortune to see either of them; but, accepting the reports of them in the daily papers and medical journals of the day as probably correct, after a careful examination of the symptoms and statements of their histories, I do not find that they vary materially from those I have witnessed as above stated, One of these parties did not remember that he had ever been bitten by a dog, rabid or otherwise; another was bitten by a house-dog kept about a store, and at the time was known to be free from hydrophobia; the third was bitten by a dog supposed to be rabid. All died.

OVARIOTOMY BY ENUCLEATION.

Professor R. Ludlam thus describes the method he used in a recent case:

"Although none of us had ever witnessed the removal of an ovarian tumor by enucleation, I had previously determined upon

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this mode of procedure, more especially as it was evident that the cyst was bound on all sides by adhesions, resulting from the frequent and severe attacks of peritonitis to which my patient had been subject."

"I made the incision, as usual, along the linea alba. At first it was only four inches in length, but it was afterwards enlarged There was but little hæmorrhage. Anteriorly the adhesions were so intimate and firm that it was only by the escape of the abdominal fluid at the lower end of the incision, and the application of Atlee's test that we were certain that the peri-The sound was passed, beneath toneal cavity had been opened. the umbilious, but would not glide over the anterior surface of the tumor at all. A slight separation of the adhesions was attempted on each side of the incision, sufficient to prove that they were very compact and very vascular. This fact was so obvious that all the physicians present expressed themselves satisfied that the operation must have been abandoned, or that the patient's life would have been put in great peril by completing it after the old method. And this state of things caused me to renew my resolution to test the expedient of enucleation. At a glance it was evident, however, that the mode of performing this operation as first recommended and practiced by Prof. J. F. Miner, of Buffalo, was impracticable. The tumor could not be turned out upon the abdomen, and the adhesions were in the way of getting at the pedicle. Therefore, in order to separate the cyst, we could not begin 'under the central portion of the pedicle,' but had to content ourselves with first detaching it at a point opposite the abdominal incision."

"Now this, as you may suppose, was a very delicate matter. The peritoneal layer being very thin and the cyst-wall likewise, the greatest care had to be exercised in begining and in completing their dissection and detachment. A very slight incision was first made, and the scalpel used to carry on the separation until it was sufficiently extended to allow of the fingers being employed in the same way. It was only with extreme care and patience that this part of the operation was performed, for the cyst required to be separated in this manner throughout its whole circumference. Indeed it took Dr. Dorion and myself nearly three-fourths of an hour to accomplish this object. And during all this time we exer-

cised the precaution not to lift or disturb the matrix of the tumor lest we might rupture some delicate adhesions on its posterior surface, and thereby cause a concealed internal hæmorrhage."

The diagram on the blackboard will give you a pretty correct

The diagram on the blackboard will give you a pretty correct idea of the pathological anatomy of the tumor, and also of the relative position of the tissues which were separated during the operation."

"Having finally removed the cyst, we were prepared to appreciate Dr. Miner's remark:—"

"'No surgeon in the world was ever more surprised at what he had done than myself, when I found that I had removed a large ovarian tumor without ligating a single vessel, and without any had have been approximately than the world without any had been surprised at what he had done than myself, when I found that I had removed a large ovarian tumor without ligating a single vessel, and without any had been supprised at what he had done than myself, when I found that I had removed a large ovarian tumor without ligating a single vessel, and without any had been supprised at what he had done than myself, when I found that I had removed a large ovarian tumor without ligating a single vessel, and without any had been supprised at what he had done than myself, when I found that I had removed a large ovarian tumor without ligating a single vessel, and without any had been supprised at the supprised at th

"Here we had taken out this large sac without having applied a ligature, or resorted to torsion or any thing of the kind, and what was equally remarkable, without having seen the intestines, the uterus, the opposite ovary, or even the pedicle! It really seemed as if some important step in the operation had been omitted."

"But it only remained to clean the hull of the bloody serum which had oozed from the capillaries. After waiting a quarter of an hour, in order to be certain that hæmorrhage would not set in, the abdominal incision was closed with silver sutures in the usual way. The cut was dressed with a compress moistened with a mixture consisting of the tincture of Calendula, Glycerine and warm water, in equal parts. The whole was secured with adhesive straps and a binder, and the patient put to bed again. The entire operation lasted two hours. The cyst and its contents were estimated to weigh thirty pounds."

We may add the report shows the patient to have made a fair recovery and the whole operation reflects great honor upon the distinguished gynæcolgist who performed it.

Theory and Practice.

HOMŒOPATHIC FREE DISPENSARY—CLINICAL REPORTS.

CASE I. Scarlatina Maligna, complicated with Diphtheria— Treated with Bell. 30th, Bin. Hg. 2d, Kali Bich, 1st, Phos. 30th and Alcohol.

Miss N. P., aged 13 years—of hæmorrhagic diathesis and predisposed to ulcerated sore-throat, was attacked with malignant scarlet fever, Nov. 11th. 1873. The eruption came out feebly at first, but the tonsils inflamed, swelled and ulcerated fearfully. Her breathing was alarmingly obstructed and deglutition very much impeded. Diptheria set in as a complication on the third day with such violence as to threaten immediate dissolution. Four times the diptheretic membranes became detached and were drawn from the nose by the patient; followed each time by severe hæmorrhage. The tongue was heavily loaded, breath extremely fetid, face puffed and quite livid, the glands about the face and neck greatly enlarged, and the patient wore the aspect of extreme suff ering.

Treatment:—For the early symptoms we administered bell. 3d to 30th bin. hg. 2d.

After diptheria set in with the symptoms above enumerated, we resorted to phos. 30th to meet the hæmorrhagic tendency; kalibich. 1st for ulceration, enlargement of glands, great restlessness and rapidly shooting pains from one part to another; intense itching and great dyspnæa accompanied with general heat and perspiration. In addition we gave alcohol in water, (one dram of the former to one ounce of the latter) a teaspoonful evey hour to prevent further diptheritic deposition. No hæmorrhage followed the first dose of phos. 30th and a speedy convalescence ensued.

Case II. Scarlatina — Retrocession of Eruption — Treated with Bell. 30th, Cuprum 6th and Sulph. 30th

Mrs. P., of this city called our attention to her daughter, aged 4 years, who was attacked on the 25th of January last with Scarlitina. The characteristic eruption came out well upon the neck and body. Through accident or otherwise the child was exposed to a draft of air and speedily the eruption entirely receded. The next day she was seized with violent convultions. A messenger was dispatched for us, and before he could reach her with the medicine we prescribed she was in her 3d paroxysm. Bell. 30th was administered at once, and the mother states that immediately the violence of the convulsions was arrested and the paroxysms permanently cured.

Visiting the patient two hours thereafter we prescribed cuprum 6th and bell. 30th.

Next day we found the patient with a rapid pulse, sore-throat, pain in the occiput, photophobia, thirst, aversion to food and hacking cough: continued the above remedies. Soon after the head was drawn backward and to the right, remaining in that condition for two weeks, which we attributed to hyperæmia about the base of the brain. The only position in which the little patient could get rest was by lying upon her back in bed. Pulse for the first three weeks ranged from 120 to 156. The rigidity of the neck disappeared at the end of the 3d week, her appetite returned and the child so far recovered as to be able to sit up. An obstinate constipation set in at the 2d week, for which sulph. 30th was given in place of cuprum. During the 4th week she began to move about the house, but with an awkward and unsteady gait—much like her efforts at first learning to walk.

At the outset, her life was despaired of by her parents and friends. She is now well and hearty. There was no re-appearance of the eruption.

O. W. LOUNSBURY.

PRACTICE IN KANSAS.

Marasmus after Cholera infantum—Arsenicum 30th—Dietetic Management.

Was called, the 1st of October, to see a child, eight months old that had been attacked with cholera-infantum the middle of August. An Allopathic physician treated the case at the time, and had charge of it up to the time I was called. The disease after the first violent attack had assumed a chronic form.

Found the child much emaciated, eyes sunken, lips blue, and dry, great thirst, pulse almost imperceptible. She took her food, which was a preparation of cream and water, greedily, but ejected it from the stomach as often as taken, or it passed through the bowels in an undigested state. She had from her birth been nourished from the bottle.

The remedies the attending physician was giving were a preparation of bismuth and opium, in alteration, with half grain doses of quinine. I shall make no comments on his treatment; it is heroic enough to speak for itself.

The case seemed utterly hopeless. There were septive symptoms. The stools were dark, mixed with mucus, having a putrid smell. There were from eight to ten copious stools in twenty-four hours; each stool followed by extreme exhaustion. Gave Ars. 30th every two hours. The next thing, and undoubtedly the most important, was the diet. As the stomach refused the cream, and judging from the condition of the blood that an albuminoid was most needed and would be most readily assimilated, I gave the white of an egg prepared after the manner suggested by Dr. B. at the A. H. I. last year; the beaten white of an egg in a half-glass of water with a very small quantity of salt and sugar added. Gave two teaspoonfuls every two hours. This was retained; no symptoms of nausea appearing.

She was kept on the egg diet thirty-six hours when she refused it. I then resorted to pure milk warm from the cow; two teaspoonfuls every two hours. This was taken with avidity, returned and digested. Improvement went on without interuption. The intervals of giving nourishment were lengthened and the quantity increased as the child grew stronger, but still given warm from the cow for six weeks. It was given at the end of two weeks after having cooled and been warmed, but it did not digest as well. After the child had fully recovered, milk that had stood was given without trouble.

Anna Warren.

CLINIC OF PULTE MEDICAL COLLEGE.

SERVICE OF WM. OWENS, M. D.

No. LXIV. Heart Disease,—Chamomilla and Digitalis. Our patient to-day, gentlemen, is Mrs. S. D., wife, aged 29.

She tells us she has always had more or less palpitation of the heart, which has been particularly aggravated since May last, with such symytoms as—vertigo, worse on going up stairs; nervous tremblings; numbness of left arm and leg; and a tingling sensation in the head and face. These last-mentioned symptoms, we shall find, are caused by a pressure on the cardiac plexus. She can not lie upon her back or on the left side, those positions so aggravate all her symptoms.

Palpitation discovers a very forcible impulse of the heart at each beat, and the apex impact is particularly strong, and found between the sixth and seventh ribs, to the outer side of the breast, thus indicating considerable displacement of the organ. There is an absence of the respiratory murmurings over the whole præcordial region, which is abnormally extended. The pulse is full and compressible, and there you hear a peculiar nervous cough, so commonly heard in connection with these heart diseases. Besides which, the patient wears an anxious, nervous look in her countenance, seldom found wanting in these affections.

Our diagnosis of organic disease of the heart, consisting in hypertrophy and dilutation of the left ventricle, is thus clearly arrived at.

We can trace no very decided history of rheumatism in this case. This condition has existed since last May, induced, the patient says, by trouble and grief.

Our prescription will be Cham. 2x., which covers well the nervous excitability and numbness of the extremities. It is particularly applicable here for the constrictive sensation, as though the heart were grasped by a hand, which the patient describes. Also digitalis 2x., for the relation it bears to chronic organic diseases of the heart.

A CASE OF SKIN DISEASE.

E. M. Morton, bilious temp., single, aged about 20, About 7 years ago supposed he was poisoned by working in a swamp where rhus vines were pretty plenty, since which time, during the warm weather, he has had nearly all the time a rash out on him, particularly on hands and feet, resembling the rhus rash. At times watery blisters and again purulent vesicles, with considerable swelling when exposed to the air, of the feet especially; also terrible burning when exposed to the air, so that for weeks would be compelled to sleep with boots on or spend the night in rubbing or scratching the feet. For the last two winters has had several spells of colic, cramp. During first of these winters was always relieved by hot application and colocynth internally; but last winter had one severe spell for which col. was given without relief. Tried everything that I thought came within a mile of his case, with the same result. morphine or see him lose his reason with pain.

As soon as he was able to travel, took him to Cincinnati, Pulte College. Prof. Beckwith examined the case and with others pronounced it poison by rhus vernix.



This summer his feet went through the same course as last summer, with the addition of numerous boils; and, now that cold cold weather is setting in, I dread a call from him. I might mention his brother-in-law went through the same suffering, with, as I am told, this difference: that his colic was always followed by diarrhæa, with complete relief; but, during his last attack, his physician (an allopath) gave him opium to cure the diarrhæa, but as soon as the diarrhæa ceased, his bowels bloated up and he did not live to have another attest.

No treatment so far avails.

B. F. JACKSON.

Chesterville, O., \ Nov. 14th, '73. \

HOMŒOPATHY AND THE BRITISH MEDICAL JOURNAL.

It is impossible to resist a smile, if indeed one does not laugh outright, while reading the article found in the present number on page 525. Our allopathic brethren have set themselves earnestly at work to put down homeopathy. We are giving them serious trouble undoubtedly. We have been so many times utterly demolished it seems strange we cannot consent to lie quiet. It will be seen the *British Medical Journal* has pointed out the fact that "Homeopathy, which began as a delusion, is now ending as a fraud." And the Clinical Society of London has given the same verdict. But this does not alarm us, as the same parties, or their friends have given the same verdict before.

Sir Jas. Y. Simpson and Oliver Wendell Holmes testified to the fraudelent and unscientific character of homœopathy years ago. The latter is no doubt chagrined to find the discarded and hated thing growing into the proportions of an endowed university right under the shadow of the Medical Department of Harvard. It does n't prove anything, therefore, for Dr. Johnson, or the Clinical Society, or even the *British Medical Journal*, to declare that in their opinion we are "a bad lot." What proof have they to present? Let us see.

Heretofore homeopathy has been charged with being delusive, in that the medicines, so-called, which it offered amounted to nothing; they were useless, ineffectual and no better than moonshine. But the results of the practice did not warrant the statement. Homeopathy was increasingly successful and popular. It became necessary to go over the ground and re-investigate the case. The result we have in the article under consideration.

Instead of being harmless and impotent for good or evil, behold! homeopathy is the most potent and dangerous agent known. Its remedies, instead of being diluted and enfeebled by attenuations, are more concentrated and powerful than any of the drugs known to the medical world. And these agents, sugar-coated, are surreptitiously smuggled into the stomachs of unsuspecting patients. It is not stated if the patients are cured or no. It is enough that if they take too much they may be killed. And, since killing by improper dosing has been so long the exclusive right of the allopathic school, it would be too bad to have them subjected to any competition in that line.

No such fatality under homeophthic treatment is mentioned by the writer, and for the very good reason that no one was ever killed in that way, while, on the other hand, we have known at least a hundred cases of downright murder committed by druggists and doctors using old school remedies.

Dr. Alfred Swaine Taylor is another important witness and "he has many times examined homœopathic globules and in general found them to be composed of sugar and starch only." It would have saved him much trouble had he looked into our pharmacopia, for he would have found the same statement there. It is about as much of a discovery as that water is composed of H₂O. But "Drs. Taylor and Odling examined 64 small tubes of homœopathic globules, averaging 52 globules to the grain, and including, as would appear from the attached labels, every variety of mineral and organic poisons and medicines." "They satisfied themselves of the absence of any trace

in the globules of the substances mentioned, for all of the most delicate tests gave negative results." And then they took a considerable quantity of them. "No effects followed."

"They could easily have found the 1-40coth part of a grain of arsenic or mercury;" but nothing of the sort was found. Hence—and this is logic—the homœopathic doctors are using "the most dangerous (because the most concentrated) medicines which can be handled." And now we beg leave to inquire, Which is it? Why blow hot and cold in the same breath?

If these gentlemen had gone to the homoeopath pharmacist who put up the remedies, they would have found that the amount of medicine in the vials was not susceptible of chemical tests. This is no secret and does not need to be proclaimed as a new discovery. But these distinguished gentlemen show their incompetency in another important particular. Mark this: They say "all the most delicate tests gave negative results." And by their own showing they applied only two kinds. The first of these was chemical. And yet, in the light of modern science, chemical tests are comparatively rude and coarse. Is it possible these gentlemen are unacquainted with any other means of detecting minute quantities of substance? Do they not know of any means whereby the 1-10000th or the 1-100000th of a grain may be detected?

"On one of our office tablets we find the following: And such is the unrivalled delicacy of prismatic analysis, overshadowing the most delicate chemical re-action,—even also the microscope, used to detect the finest particles, that they (Kirchof and Bunsen) discovered two new metals in salt water, which contained them in the following quantities: three grains of the chloride of cæsium and four grains of chloride of rubidium to the ton. The 180,000,000th part of one grain of sodium, if brought into a Bunsen burner, will show the characteristic yellow line. The 60,000,000th part of a grain of lithium will in the same way produce the characteristic red line near C, and the light yellow line near D."

Of course the gentlemen tried nothing of the sort, though they tried "all the most delicate tests."

And the second method they tried was in a toxicological way. They took comparatively large quantities of the globules and felt none the worse. Any respectable homœopathic physician would have told them the same before they tried the experiment. Why trouble themselves to prove a point already conceded? It is our pride that the poisonous, injurious qualities of our drugs are wholly lost in our mode of preparing medicines. In any case they are harmless to kill or maim.

And with these tests the gentlemen end their investigation and render their verdict. They do not seem to know that we have a better test, and also that it is the only rational test that can be applied to any drug used as a cure of disease. Suppose they had taken the medicines found in the vials, examined and applied them to cases of disease according to the well-known principles of homeopathy. Suppose they had given arsenic for the characteristic symptoms of that drug. Suppose they had tried the mercury and the antimony and the sulphur in the same way. Suppose-but it is idle to make any further suppositions. These gentlemen and their friends will not submit the case to the only tribunal to which we appeal. Trying our medicines in our way is what they have neither the courage nor the Their professed humility and teachableness is all grace to do. sheer pretence.

The idea that we are engaged in making and using concentrated medicines, these distinguished gentlemen know to be utterly false. They pay a fair tribute unconsciously to the purity of our tinctures. And they know very well that any drug can be best obtained in its greatest purity from our homœopathic pharmacists. If any man, a professed homœopath, uses sugar-coated drugs, he gets them always from some allopathic source. If he gives crude doses of morphia, strychnia and belladonna, sufficient to produce poisonous effects,—that man should know that he is interfering with the time-honored rights of the allopathic school; that he is doing himself very little credit; that he is injuring his patients and casting a shame on the school of medicine to which he belongs.

Gynaecology.

CANCER.

We find in the report of Columbia Hospital for Women, a copy of which has been recently sent us, the following:

"The great mistake which appears to have been made by the older authorities in relation to cancer has been in investigating it as a special disease, without due regard to the particular organ or part of the body in which it may have been developed.

This error is now being corrected and we are beginning to learn something of the true nature of this formidable disease.

A diligent examination of the investigations of others, and the analysis of a comparatively large number of cases which have come under my own observation, induce me to believe—

First. That cancer is not constitutional in its origin, but the result of a slowly transpiring interstitial inflammation, dependent upon local irritation.

Secondly. That there is no specific cancer-cell, the cells found in the connective-tissue stroma being altered epithelial cells or the white corpuscles of the blood, their different appearances in different forms of cancer being dependent upon the stage of the disease and the organ in which it is developed.

Thirdly. That the probability of secondary cancer occurring after the ablation of a primary tumor depends upon the richness of the part in lymphatics and the stage of the disease.

Frequency of the disease.—The absence of a proper system of registration in this country precludes the possibility of furnishing reliable statistics of this disease. Indeed, the tables of mortality of England are not strictly correct, although the approximation to exact results is sufficiently close to render them exceedingly valuable.

The entire number of deaths from cancer reported as occurring in England, Ireland and Scotland, from 1851 to 1871, was 124,740. Of these, 41,816 were males and 92,924 females; the excess, 61,108, of the females over the males being attributed to cancer of the uterus or mammæ. In proportion to population, the death rate from cancer in Paris is largely in excess of London, and this, I think, can readily be explained by a consideration of its causes.

In the large cities, as compared with the rural districts, the rate of death from malignant disease is much higher. M. Tanchou computes the deaths from cancer in the arondissments of Sceaux and St. Denis at 1.63 per cent of the total mortality of the suburbs, while intra-muros, or in Paris proper, the estimate is 2.54 per cent, showing that this disease is much more frequent in the capital than in its environs.

In England the frequency of cancer in the counties, as compared with London, is in the proportion of 1 to 1.4406. The remarkable agreement in these proportional numbers, deduced from two independent registers, would seem to justify the conclusion that city life is favorable to the production of cancer.

In the department of the Seine, the mean of ten years from 1830 to 1840 of deaths from cancer was 0.75501 to every 1,000 living. In England and Wales the mean for the same time was 0.18954 for every 1,000 living.

After making every allowance for the difference in the system of registration in the two countries, we shall find the mortality from cancer in the Department of the Seine to be nearly four times greater than it is in England and Wales.

In America it is impossible to ascertain the relative proportion of cancer to other fatal diseases; but, from all the available data. I am satisfied that the proportion is very largely in excess of that of Great Britain or France; and that, within the last ten years, the numbers afflicted with this disease have increased out of proportion to the increase in the population.

No calculation as to the general frequency of the disease can be made from the reports of hospitals set apart for the special treatment of females, but a very correct estimate can be obtained of its proportion to all other diseases to which women alone are subjected. The general law governing disease appears to exercise little influence on cancer. Concentration of population and imperfect hygienic surroundings do not increase its frequency.

In 470 deaths from cancer occurring in thirty-one of the Unions or parishes in London between July, 1837, and December, 1838, we find the following anomalies: 10, most unhealthy, population 517,288, deaths: 14 males and 82 females; 11, medium salubrity, population 505,746, deaths: 36 males and 103 females; 10, healthiest, population 787,785, deaths: 46 males and 189 females. From this it would seem that the mortality from this cause increases with the salubrity of the locality.

If cancer was the result of a general blood-poisoning, if a preexisting cachexia was necessary for its development, we should naturally look for an increased number of cases among the lower classes, who inhabit poorly-ventilated houses in unhealthy portions of large cities, as we find all other blood-diseases fearfully increased among that class of population; but the reverse is the case."

"Menstruation.—Whether scanty, profuse and painful, painful, postponing, irregular or anticipating, appears to have no special connection with the development of cancer.

Fecundity.—It has been asserted by many authorities, though ample proof to the contrary has long since been adduced, that single women and those who were sterile were most liable to be attacked by cancer. The truth is the direct reverse of this statement.

Out of 134 cases of carcinoma uteri reported by Dr. West, but 3 were single women, and only 8 were sterile; in other words, there was but one sterile marriage in 16.3 of the cancer patients. In St. Bartholomew's Hospital the average is 1 sterile marriage in 8.5.

The further we extend this inquiry the stronger becomes the evidence that extraordinary fecundity predisposes to cancer.

After deducting the 3 single and 8 sterile cases from the above 134 cases, we have 123 women whose marriages have been fruitful, they having been pregnant 844 times; 685 of the pregnancies terminated at full term and 158 prematurely, the aver-

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age being 6.8 pregnancies to each woman, with 5.5 children born at full period and 1.2 miscarriages."

"In 14 of the 123 cases referred to by West, the symptoms of cancer were discovered almost immediately after the termination of pregnancy, or at least within a sufficiently short period to connect the disease with the changes occurring in the puerperal state."

The article from which we have made the above extracts is very full and exhaustive Those desirous of carefully studying the disease can procure the work by addressing the Department of Interior, D. C.

Proceedings of Societies.

HOMŒOPATHIC SOCIETY OF NORTH-WESTERN PENNSYLVANIA.

At a meeting of physicians held in the office of Dr S. J. and Anna S. Hill, in Franklin January 13, it was resolved to organize a society and the following officers were chosen:

President, W. H. Jackson, Oil City;

Vice-President, J. A. Dunning, Corry;

Secretary, S. J. Hill, Franklin;

Treasurer, C. T. Canfield, Titusville;

On motion, adjourned to meet in Titusville, Tuesday, April 14, 1874.

S. J. Hill, Secretary.

MEETING OF THE LIBERAL MEDICAL ASSOCIATION AT FRANKLIN.

Franklin, January 13, 1874.

The Liberal Medical Association of North-western Pennsylvania convened in accordance with adjournment in the Councilroom, and was called to order by the President at 8:30 A. M. The roll called and minutes of the previous meeting read and adopted. On motion, all physicians present were invited to seats with the association. Prof. T. P. Wilson, of Cincinnati, and Dr. McCormick, of Tylersburg, Pa., were introduced by the President. Dr. A. R. McCormick, having been duly vouched for, was elected a member.

Dr. C. D. Thompson delivered the following address:

Doctors of the Liberal Medical Association of North-western Pennsylvania:

One year has now clapsed since this association was organized. We have more than realized our fondest hopes in its continued prosperity. In our correspondence with physicians in this section of the state previous to our organization it was thought by many physicians to impossible to be organize an association. But perseverance in a good cause will surely win. The necessity of an organization was repeatedly urged upon them, but not until they were individually asked, what will you do in the great cause of Liberal Progressive Medicine? Will you be one of the number ta assist to organize an association on a broad and liberal platform, saying to them it is no difference to what school you may belong to, only that you are a physician in its truest sense, by degrees as doctors of medicine in the different schools, and in accordance with the laws of the state? For what care we for the antiquated opinions and dogmas of the past ages unless they will stand the proofs and tests of the present day? have found the better and truer way in the healing art we shall succeed, and have reason to be proud of it; and if not, let us sink into oblivion and be forgotten as medical men. But, judging from the interest taken and the skill and ability of the numerous members of the association, we shall succeed. We have a bright future before us. Already the penetrating rays of the sun of medical progress illuminate our organization and a ray of hope beams upon us. We are just getting into thorough working order. Only let each one in the association feel an individual responsibility for its success and put his shoulder to the wheel and aid by every means in his power for our general good, and we shall succeed, and the bright day soon dawn upon us when the name of what school of medicine does A, B or C belong to will be blotted out, and only the question will be is he a physician, a well qualified, skillful practitioner of medicine, in its full sense.

On motion, Drs. Borland, C. D. Thompson and Jackson were appointed a committee on fee-bill, to report at next meeting.

On motion, the election of officers was postponed until the evening session. The dues were fixed at one dollar for the ensuing year. The financial report of the Treasurer was presented and approved. Dr. Borland offered the following by-law: That five members shall constitute a quorum. Approved. On motion, adjourned for dinner, to which the association invited Drs. Hall, St. Clair and Borland.

Dinner being over, the association convened at 1:30 P. M., at the rooms of Drs. Borland, St. Clair and Kolb. Their spacious rooms were found already filled with patients and their friends. The following cases were presented:

[For want of space, we must omit the list of clinics. About 45 eye and ear cases were presented, including those presented in the evening and following morning. Of other cases, there were about 20. Drs. Thompson, of Meadville, and Proper took charge of all cases not belonging to the eye and ear department.]

Although the clinic was held continuously from 1:30 to 5 P.M. and a part of the time three were being held in as many rooms, yet we are sorry to say that many were unable to be presented for want of time; the last operation—one for hare-lip—being performed by gas-light. Instead of half a day two whole days should have been devoted to the clinic. Some important operations were postponed for the want of time only.

After the clinic adjournment, the association proceeded to the election of officers for the ensuing year: For President, Alex. Thompson; Vice-President, S. J. Hill; Recording Secretary, J. R. Borland; Corresponding Secretary; C. D. Thompson; Treasurer, J. L. Proper; Clinic Surgeon, Alex. Thompson; Clinic Physicians, W. H. H. Jackson, J. M. Harding and J. R. Borland; Censors, J. St. Clair, W. C. E. Martin and C. T. Canfield.

The officers being duly installed, the President suggested the appointment of a Committee on Locations for Physicians, which was adopted.

On motion, Drs. Alex. Thompson, Martin, Proper, Harding, Hill and McCormick were elected said committee.

On motion, the next meeting is to be held at Meadville on the first Tuesday, of September, next.

Dr. Martin reported that he had received a letter recently from the mother of the child which was operated on at the last clinic for hare-lip, stating that the operation was a complete success in every respect, also expressing the warmest thanks to the association for its services in her child's case.

Several members had cases to report, but were prevented for want of time.

On motion, Drs. Harding, Borland, Jackson and Hill were appointed essavists for the next meeting, with choice of subjects. On motion that an order be drawn upon the Treasurer for the expenses of this meeting. Adjourned to supper, after which the association adjourned to City Hall to listen to the lecture of Prof. Wilson, on "The Physician of the Future." The Professor was duly introduced by the Vice-President, Dr. Hill, and greeted by a large and intelligent audience. After its delivery the association passed the following vote of thanks: To the Mayor and Council for the use of Council-rooms for day meeting; to Drs. Borland, St. Clair and Kolb for the use of their rooms for clinic; to proprietor of City Hall for its use for the lecture; to Prof. T. P. Wilson for his kindness in attending clinic and for his very excellent lecture; to local papers for favors shown: to the Committee of Arrangements for the hospitable manner in which the association was entertained, and for the admirable arrangements for this meeting; to F. F. Houghton and Co., of

Philadelphia, for samples of cosmoline and U. S. P. Cerates with cosmoline base presented to the association for examination and distribution.

The property of cosmoline not to become rancid from being long kept is a very important consideration. Professor Wilson recommends it very highly and remarked that he made much use of it in some diseases of the ear.

On motion, the association adjourned.

J. R. Borland, M. D. Recording Secretary.

Misellaneous.

A PLEA FOR A POPULAR MEDICAL SCIENCE.

I wish I could make it "as plain as a pike-staff" that "all the world, and the rest of mankind," should inform themselves about medical matters; and by this I do not mean merely the compounding and prescribing of drugs, for this would hardly be required of any one were the people better informed. For I hold it as an axiom that the more ignorant people are of the structure of their bodies and the law of health the more drugs they will consume. Doctors, when sick, take very little medicine, because they know better; but most people when sick consume a large amount of medicine because they do not know any better.

I never saw a physician in active practice who did not complain that he was obliged oftentimes to give a great deal more medicine than he desired to, and all because the prejudices of the people required it. But why do not people seek after such knowledge? Medical art is not a secret. There is no end to medical text books. As for medical journals, they may be had in all sizes and shapes, and at all prices. But who reads them but the doctors? The people take our prescriptions, thankful that they do not have to peruse our literature. We deny to no man information upon these subjects, but we are morally sure that unless he intends to enter the profession he will never trouble himself about our text books.

I don't believe there is an intelligent person living who does not at times desire to have a knowledge of the facts of anatomy and physiology. Anna Dickenson says she never saw a woman who did not wish she were a man; and I am sure I never saw a man who did not wish he were a doctor, and the same desire possesses most of the women and children. These persons do not desire to practice medicine, but they covet the knowledge of the medical profession.

Our plea, therefore, is for a popular medical science; for the taking down of the gates that have too long barred out the people from these vital questions, in order that we may let the people in, or else turn the questions out, where they can have a free range in the intellectual considerations of the public mind. If medical science was a system established solely for the benefit of its practitioners, it might be properly left where it is, in the hands of the doctors. Those medical gentlemen do not, as is well known, take their own medicine; they mix their doses for the dear people, and it is high time the dear people had some notion of what they were taking, and what they were taking it for.

I would not take this matter out of the hands of the profession, still I would put it in the hands of the people. Since both parties share in the profit and loss, I would have them joint partners in the capital stock. I would take the whole range of medical science, and make its general principles the common property of the world

"That is to say," says brother Doubtful, "you would multiply our works of domestic practice, you would put such a book and case of medicines in everybody's hands, and make everybody their own physician, and so practically abolish the learned, dignified and privileged class of doctors."

Softly, friend Doubtful, that might be well if it could be done, but we don't contemplate such a coup d' etat.

Who are our statesmen? Are they less learned, less honored, less influential, because in this enlightened country every man, and not a few women among us, are politicians? Who are our lawyers and judges? Are they degraded because the people study the principles of civil government? Look at our divines. Are they shorn of their strength because the Bible is in every. household? Do Sabbath-schools detract from the power and influence of the pulpit? Is not this knowledge possessed by the people their very safeguard from evil? Can despots enslave us, or bigots delude us, or villians cheat us, while these things are cherished by the people? How can civil despotism or religious intolerance ever rise in our midst except upon the ruin of these unalienable rights of the citizen?

How, then, will a knowledge on the part of the people of thet science and art of medicine prove detrimental to the interests of the medical profession? Quacks may tremble at the thought, but not the true medical man. More anon.

T. P. W.

THE SCOPETII OF ROUMANIA.

There is a religious sect in Roumania known as Scoptzi, and numbering, in all, in the provinces of Wallachia, Moldavia and Roumanian Bessarabia, five hundred and thirty-three persons. They originally came from Russia, where the largest number still continue to reside.

This sect must not be confounded with the Lipovians proper, whose population in Roumania is over fifteen thousand; as the Lipovians have no such practice as Scoptzi or castration in their creed.

Castration of the Males.—Scoptzi or castration, consisted with the old Scopez in cutting off the testicles, which they called the "twin members." It was done by cauterizing the petty sac with a red hot iron; an operation known as the "baptism of fire." Later the separation was performed by razors, knives or other sharp instruments, with which the petit sac was cut off, after it had previously been strongly tied with a string. Subsequently cauterization is sometimes employed as a means of stopping the flowing of blood.

But fanaticism did not rest here. According to the declaration of the Scopez themselves, the absence of the testicles does not destroy altogether the bodily concupiscency, and those castrated in this way do not lose the faculty of cohabitation, although the act is performed without the ejection of sperma, and is effected with great effort and extreme fatigue. To arrive, then, at perfect chastity, and the utter extinction of passion, the fanatics decided to remove even the member (penis) which is called the cheia abyzbulin the "key of the abyss." This operation which takes place several years after the removal of the testicles, and sometimes together with the first operation is called botexu deplinu, i. e., the perfect baptism, or pecetei imperatexi, i. e., the imperial seal; and is effected with an axe or hatchet. This operation appears to be of more recent date, and was first introduced about the year 1816. This produced a scism in the sect, whose vestiges are The old Scopez who followed the first operation still existing. only, consider the imperial seal as a criminal innovation originated with the Scopez across the Doscon, whom they call dogs.

Besides the principal forms of castration, there are also others. There is a sect called Perevertysii or Twisters—principally in the province of Tamboonlu. These do not cut off the members, but from childhood twist the funiculi spermaici, and thus stop every organic communication between them and the body which prevents the formation of the sperma within them, and produces the same effect as castration. In 1841—'42, another sect was discovered, founded by a peasant, Kutlin, who is suspected to castrate by splitting or piercing the funiculi, which has the same result as the twisting of the Perevertysii. Physicians believe this to be a very difficult operation, as the cutting of the veins

must produce flowing of blood to the imminent peril of life. If successfully done the castration can not be recognized.

Castration of Women.—Not men only are submitted to this operation, but also women who take the name of Scopcichi. The operation with women applies to the breasts and to the genitals. Sometimes their breasts are entirely cut off; sometimes only the nipples are cut, burned or corroded; sometimes they cut out only the glands from under the breasts, especially from under the left breast.

At the genital parts they cut the clitoris, the labia minor, and sometimes the labia major. Such mutilations, however, do not produce the same effect as the removal of the testicles of the male. The real castration of women could only be effected by the removal of the ovaries, but this operation is considered by modern physicians, if not altogether impossible, at least dubious.

Learned medical men, however, affirm that the cutting of both breasts is almost equal to real castration, for the breasts being in close connection with the womb, their absence must deprive women of the faculty of conception and concupiscency at the time of cohabitation.

This is said to be confirmed by the fact that the so mutilated women are commonly distinguished in their outward appearance by the same deformity, faded complexion and want of elasticity and spirit in the very bloom of their lives, as with the male castrated. All other mutilations of women are not real castrations, if they leave them the faculty of cohabitation and pregnancy.

Generally the mutilated women have a yellow, wrinkled complexion, small breasts, etc. This can not be explained by their abstinence; there have been observed cases of great corruption of these women; none of them however gave birth to children. It is therefore to be suspected that they cohabit with the Scopez who have not the imperial scal, and from this unnatural and unsatisfied irritation springs their state of weakness and infirmity.

Old Scoptzi affirm that the castration of women is a novelty of Moscow, introduced at St. Petersburg at the time of the second seal for men in 1816. Budilin asserts that the castration of women has two degrees: the first being the injury of the womb, and the cutting of the clitoris; the second the removal of the

reasts, which is done by instruments baving the shape of a knife and fork.

In Bucharest, there are two hundred Scopez, who are principally engaged in driving public vehicles which they own. They appear to love horses, having the best and swiftest, and driving like demons. They have also a passion for hoarding money. They are all well-to-do. They are of a pale yellow complexion and grave-like visages. A short time after their castration, their beards fall out and their voices change to the thinnest feminine ket. They are all of Russian birth or extraction, and as their number die out, they appear to import others in their place.

I have not yet been successful in discovering whether they now castrate their women; they will not speak upon the subject for love or money. In Jassy, however, there was recently a case before the courts, prosecuting some of the sect for cutting the breasts of a young woman, whom, it was claimed, they had converted. Before they are castrated they are permitted to marry and have one child; then they are worked upon by the fervor of religious zeal until the act is performed.—Atlantic Medical Journal.

PAIN AND AN ÆSTHETICS ETHICALLY CONSIDERED.

As a large proportion of physical pain has been made optional, it is worth while considering whether physical suffering is in any degree a part of the cosmical plan; or whether humanity may not, lead its own captivity captive, and put pain under the dominion of the will.

I know that old theologians have considered pain as a kind of physical conscience, the protest of nature against her disobedient children. But if so it is a very dull and partial one; and not in any case to be relied on. For the transgression of Nature's manifest orders sometimes gives pleasure at the time, instead of pain; and again the uneasiness is often quite unintelligible, a mere unlocated discomfort, while it is very seldom proportionate to the actual danger. A tooth-ache or a corn giving far more anguish than the beginnings of many fatal diseases.

This idea that pain is punative, a kind of expiation for sins against the body, has no element of justice about it; no two individuals pay the same amount of suffering for the same excess; nor does the sin and suffering bear any proportionate ratio. Surely (for instance) the vanity or accident of a tight shoe, or the neglect of the tooth brush, do not merit the amount of anguish which in many cases is sufficient to atone for a capital crime.

And if pain is not punative, neither is it preventive. "It is a standing paradox in morals that a given amount of pleasure allures far more than the same amount of suffering deters." Certainly one would expect that toast and water would be the ordinary diet of the man who had once felt the rack and torture of the gout. But, as a matter of fact, we know that flesh and wine are temptations he goes with a kind of gay daring half-way to meet. The rapidity with which pain is forgotten and its teachings ignored, is one of those mysteries that neither doctors of divinity nor doctors of medicine can solve.

And if pain is not punative nor preventive neither is it instructive. Agony serves no moral purpose. Endurance may be cultivated, but it is only cultivated insensibility. The real virtues, such as faith, patience, &c., are always perfect in their dignity, and are the growth of more heavenly influences. The one absorbing feeling in great suffering is supremely selfish, it is an intense longing for ease and rest. To simply endure is a very low ideal of humanity. Brutes often show infinitely more endurance than man; and the skill which evades pain is a greater triumph than the endurance which accepts it.

This is not a special ethic of the 19th century. The healer of men, the subduer of pain, whether it has been man or medicine has always received grateful honors. Before the dawn of organic chemistry, there were bold spirits who sought out the dreamless, painless sleep of anæsthetics. Prof. Simpson and Dr. Snow quote

Dioscorides, Apuleius, Pliny and others to prove that in the root of mandrake the sufferers of 2,000 years ago found a perfect oblivion. Indian hemp was also known to Greeks, Romans, and Scythians, as capable of exciting a delirum of joy into which neither pain nor grief could come; and Dr. Royle suggests that this plant was the famous Nepenthes of which Homer writes. For Helen who gives it to Telemachus, is said to have procured it from "Egyptian Thebes," and to this day "Bang" which is a preparation of it, is used all through Northern Africa.

In India and Eastern Asia its use is still universal, and 230B. C. Floa, though a Chinese physician, knew its anæsthetic qualities, and used it in surgical operations with success. English physicians say, however, that its influence over Europeans is much slighter than over Orientals, who become easily cataleptic under its power.

Sir Humphrey Davy, in A. D. 1800, gave the world its first hint of its present perfect anæsthetic. And had it been then followed up, pain would have bowed to intellect at the beginning of this century. But it was not till 1846, that Horace Wells, a dentist of Hartford, Conn., showed the practicability of Davy's discovery. For want of perseverance he failed to make good his claim, and Morton, his pupil and partner, reaped the honor which he had sown.

Though opposed at first; chloroform, in spite of disagrecing doctors, was warmly and rapidly endorsed by the public. Professors Miller and Syme, after thoroughly testing it, announced the discovery to their classes with an enthusiasm that was generous and honorable in the extreme. "Rejoice! rejoice!" they cried, "A glorious conquest has been won for humanity."

But in that hour the most vivid imagination saw only one-half its blessings. It had not then entered into the heart of any to conceive that henceforward the agonies of child-birth were optional, and that the pangs of maternity might now be turned into a dreamless sleep whose awakening should find the hopes of months a clasped reality.

Prof. Simpson of Edinburgh has the glory of this most humane and daring experiment. He found women of social standing ready to trust him, and willing to risk the condemnation so liberally bestowed on them by the narrow-minded moralists and small doctors of the day. This was in November, 1847. He was immediately assailed with denunciations. ex cathedra, and the opposition then inaugurated is yet far from being overcome, it being really incredible how many women voluntarily suffer where suffering is now optional.

ACTION OF THE LARGE INTESTINE.

An interesting case of hernia that has lately occurred in Germany has enabled Czerny and Latschenberger (Virchow Archiv. Band lix., Hest ii.) to make some important physiological experiments in regard to the process of absorption in the large intes-The patient was a man nearly fifty years of age, who had suffered from an irreducible scrotal hernia. Inflammation supervening, the sac was opened, and a loop of large intestine nine inches in length presented itself, parts of which were gangrenous, and which could not therefore be returned. Erysipelas followed. with great loss of integument; but ultimately a good recovery was made, though with the persistence of a fistulous opening to anus, which was about a foot in length, and was the part subjected to experiment. It was computed to have an internal surface equivalent to 240 centimetres. It was absolutely insensible to tactile impressions, and the prick of a needle caused no visible contraction. It did not respond to induction currents, but lively contractions were excited with the constant current obtained from two Stohrer's elements, the contractions lasting as long as the current passed.

Other experiments, made with a view of determining the absorptive capacity of the portion of intestine under observation, and which, as before stated, was estimated at about 240 square centimetres, showed that in the course of seven hours the quantity of water that could be taken up was from 617 to 772 grains.

They showed also that although the intestinal juices exerted no digestive action on albumen, and no emulsifying action on fat, yet the walls of the intestine were capable of absorbing both albumen when introduced in the soluble form, and oil if it had been previously emulsified. The quantity of soluble albumen absorbed was always proportionate to the time. Any irritation applied to the intestine checked the process of absorption, and, if violent, stopped it altogether. Raw white of egg was found to be an unfavorable form for absorption. The best mode of preserving life by means of injection is often an important subject for consideration, especially in cases of cancer of the intestine; and these experiments accord with the observations and recommendation of Leaub, that whilst comparatively little benefit can be obtained from the injection of the raw material of our ordinary diet, considerable quantities can be absorbed, and much improvement can be produced in the strength and health of the patient, if the substances have been previously subjected to operations by which they are partially digested—as, for instance, if fat be emulsified, if albumen be reduced to the soluble state, and if starch have been converted into glycose.-London Lancet.

The functions of the large intestine have, as yet, never been determined. The results of the foregoing experiments tend to show that there is no function of digestion located in the colon. But that the absorption of food already prepared, or partially digested, may take place, and life thereby sustained for a time at least, but it does not show that food thus absorbed is assimilated, as that process so far as we know can only take place when food passes through a peculiar change, effected by villi which are not found upon the surface of the large intestine. Should it ever be demonstrated that the system can be nourished for an indefinite length of time by injecting into the rectum or colon, it will still not solve the problem of the uses of the colon. physiologists throw much light upon the subject—to say that it serves as a reservoir for the accumulating forces, or as a canal for their transmission is alike unsatisfactory. It does not appear that in the healthy state the former service required, or that so large an organ would be necessary in the latter. The probabilities are that its uses are largely those of excretion or elimination;

and that the large surface there found is a wise provision of nature for depurating the system of waste material—as well as a channel for feeces and excrement.

THE NEW CHEMICAL NOMENCLATURES.

The perpetual changes of chemical nomenclature, are thoroughly disgusting. No sooner have students and others who desire "to keep up with the times" posted themselves on the new names, and settled down with a complacent "Eureka!" than they discover the whole formulary turned bottom upwards; and they must empty and dust off the old shelves of memory and lay in a fresh A few years ago, if a student on examination in chemistry had talked of chlorate of potassium, he would have been blackballed without benefit of clergy. Now he would be in danger of going out the backdoor should he say anything else. be all well enough for men who have nothing to do but to torture chemicals and technology under guard of wire caps and goggles. But for the practitioner or scientist, or man-of-all-work, who has a place to fill outside the sulphurous laboratory, and who desires at the same time to keep posted on collaterals, it is worse than annoving to find, whenever he opens a new chemical book, the substance of things concealed and confused by a new vocabulary. In medicine we change theories every few years, but then we resume old doctrines, so that if a medical philosopher should take a forty years. nap he might wake up to find himself in the right place after a turn of the wheel whether on the question of humoral pathology, or ferments in the blood, or expectant practice, or "aqua vitæ" as a panacea. Not so with technical chemistry, Whatever one learns of it has to be unlearned, when unlearned, forever. It never come back into use, but only lumbers up the cerebral storehouse. don't complain of new names for new things-Oxyanthraquinone.

Methylhexylkatone, or Dimethylpsuedopropylcarbinol, for instance. There is novelty and information in such terms, even if they cannot easily be set to music. But having learned them, we desire to live long enough to enjoy them. We implore our chemists not to revolutionize the nomenclature more than once in a lifetime. We confess to a fondness for old family names. Children do not like to have their mother's name changed too often. Besides there is better employment for men than the learning words, particularly if they have to be unlearned directly. Life is short.—Pacific Journal.

MAGNETIC SPRINGS.

Magnetism has had many calls since its discovery to act as a panacea for human ills, and, if we may credit the ancient authors, with greater success formerly than at the present time.

Having recurrence to the books, we read that Aetries, who flourished about the year 500, claims as follows: "We are assured that those who are troubled with gout in their hands or feet or with convulsions, find relief when they hold a magnet in their hands."

Beckman, in his history of the magnet, gives a long list of those who used or recommended it for the cure of various diseases.

• Wecker, in the sixteenth century, maintained that the magnet when applied to the head, cured headache; and other writers of that time affirmed the same.

At one time such was the faith, that magnetic tooth-picks and ear-spoons were made and extolled as certain preventives against pain in the teeth or ears.

Even the writer remembers an aged lady, in his youthful days, who wore upon her finger a "magnetic ring," of virtue to cure rheumatism; but, if his memory faileth not, the rheumatism must have been violent or the ring of feeble power, for the poor woman was ever and again confined to her chair or bed with recurring attacks. She asseverated, nevertheless, that when the ring Jan-4

was restored to her finger, after for any cause it had been removed temporarily, she felt a strange thrill creep through her frame.

This was, no doubt, the magnetism in pursuit of the rheumatism, which, however, we fear, it never overtook; or at all events never conquered, for the poor woman was a long and impatient sufferer.

The mysterious power of the magnet in all these cases had, it is presumed, more to do with the asserted cures than either chemical or mechanical properties.

Magnets are now so common, that they no longer excite the awe that was occasioned in earlier times; but even at the present day no thoughtful person can gaze upon the magnetized metal, connecting itself so mysteriously with the surrounding bits of iron, and communicating to them somewhat of its own incomprehensible power, without being struck with wonder and amazement.

Faraday confessed that it was ever new and interesting to him, though he spent his life amid electrical and magnetic apparatus.

It will not be within the scope of this paper to enumerate all the mechanical applications of the magnet in medicine and surgery. It was claimed to have been used to remove particles of iron from the eye, although it is now known not to possess the requisite power to withdraw a particle, if embedded in the eyeball. And Ambrose Pere' even states, on the authority of a surgeon, that several cases of hernia were cured by a somewhat complicated application of magnetic plasters.

With the doings of Father Hehl, of Mesmer—who afterward found he could do just as much, if not more, without the aid of metal magnets—and later, Perkins and his 'magnetic tractors,' most persons are tolerably familiar.

Those who desire to know more will find an admirable account of Perkins in Dr. Holmes's "Currents and Counter-currents."

The lastest development in magnetic medicine has been the socalled magnetic springs, first of St. Louis, Michigan and last of Havana. New York.

Until recently, iron and some of its ores were the only known magnetic bodies in nature. Of late the list has been somewhat

increased, but perhaps, with the exception of nickel, iron is yet the only body capable of giving rise to marked manifestations of a magnetic character.

Scientific men, therefore were surprised when it was announced that the water of certain wells in Michigan possessed magnetic properties of great intensity, and besides was accomplishing cures of the most wonderful nature.

Some pseudo-scientists claimed to have experimented with this water, and to have attained remarkable results, although careful trials by men of less credulity did not confirm these experiments.

After a time it was found that wells in other parts of the country possessed the same qualities—not only were many wonderful cures related, but half of the jack-knives in the region, it was alleged, had been made magnetic by simply holding them in the water from the wells.

And in such cases, says one writer, to doubt the truth of either assertion was to forfeit one's character for common sense, and to be given over as a heathen man and a publican.

That the knives, needles, etc., were made magnetic there need be no doubt, but that the water accomplished this is open to question; the fact of the case being, in our judgment, that the magnetism was accomplished—if we may use the phrase—in spite of the water.

To reach a thorough explanation of this we must consider for a moment the causes which tend to produce a magnetic condition in steel.

To render steel strongly magnetic is work requiring the utmost ingenuity; but experiments will show slight effects in that way in many objects.

Hence it is found that half the drills, cold chisels and other steel tools will show magnetic qualities produced by continued striking or jarring. When a boy, the writer often produced the same effect on his pocket-knife, on a cool dry day, by whittling it continually in one direction on the track of a well used railroad.

A bar of iron left on the line of polarity, i. e., north and south upon the earth, will not infrequently show marked magnetic power.

Now it may be well to remark here, that the magnetic springs are not springs at all, but *driven wells*, that is, wells sometimes flowing, at others not, made by driving iron tubing to a greater or less depth into the earth; and that, in our estimation, in so doing the iron becomes magnetized.

To maintain this, we visited in company with Dr. P. H. Hayes, a well recently driven at Watkins, N. Y., not far from the famous glen, where water had been reached at a depth of eighty feet; but driving deeper the well became dry again, and at one hundred and ten feet was still without water.

Rubbing knives, pocket scissors and needles upon the iron tubing, they manifested magnetic attraction. But afterward, the tubing having been drawn back to the water at eighty feet, and with this water pumped into the pitcher we were unable to produce the slightest magnetic manifestation. In short, nothing was rendered magnetic unless it had come in contact with the iron pipe.

It may be mentioned here that most of the sixty magnetic wells in Michigan have now abandoned their claims to "magnetic" water.

The following experiments having, in part, certainly contributed to weaken such maintenance:

Water collected freshly in a glass jar showed no signs of magnetism.

A corked tube with water did not manifest such power, nor tend to assume the position of the magnetic needle.

A bottle of water with an iron wire passed through the cork into the water showed feeble magnetic indications; but a bottle of water made alkaline by artificial means showed the same.

The "magnetic" water forced through a tube, round which was wound a wire, forming a small magnetic battery by induction, gave, when held to the eyebrow, a perceptible spark; but the same result was obtained by the use of river water under the same conditions.

Whence we conclude, that the term "magnetic spring" is a misnomer for at least two reasons; since first, it is not a spring, but a driven well, and second it is not the water but the iron that is magnetic; aside from these the term is tolerably accurate.

Now what shall be said as to the asserted cures that have been accomplished. Simply this, that whatever curative effects may be produced by saline and alkaline cathartic waters upon the human system, may be produced by these: whatever value other baths have in cases of gout and rheumatism—and we know of nothing half so efficacious as bathing, if properly administered —holds equally good here, and no more.

Exercise, fresh air, and sunshine, with water drinking by many who have hitherto known only too little of that fluid in any capacity, are always valuable therapeutic agents. To these, and to these considerations alone, must be ascribed the "cures" effected; but the mysteries of magnetism seem as deeply hidden as ever.—

Herald of Health.

MEASURING THE MIND.

The great difficulty in judging of the growth and development of the mind consists in the want of any reliable measure of mental strength-any mental dynamometer, so to speak. Our comparative examinations are attempts in this direction, but very imperfect ones, as experience has long since shown. acquired knowledge, nor the power of acquiring knowledge, is any true measure of mental strength. The power of solving mathematical problems is not necessarily indicative of even mathematical power, far less of general mental power. The ordinary tests of classical knowledge, again, have little real relation to mental strength. It may be urged that our most eminent men have, for the most part, been distinguished, at school or university, by either mathematical or classical knowledge, or both. This is doubtless true; but so it would be the case that they would have distinguished themselves above their fellows at public school or university if the heads of these establishments had in their wisdom set Chinese puzzling as the primary test of merit. The powerful mind will show its superiority (in general) in any task that may be assigned it; and, if the test of distinction is to be the skillful construction of Greek and Latin verse, or readiness in treating mathematical problems, a youth of good powers, unless he be wanting in ambition, will acquire the necessary qualifications even though he has no special taste for classical or mathematical learning, and is even perfectly assured that in after-life he will never pen a sapphic or set down an equation of motion.

In passing, I may note that nearly all our attempted measurements of mind depend too much on tests of memory. recognized sufficiently that the part which memory plays in the workings of a powerful mind is subordinate. A good memory is a very useful servant; nothing more. In the really difficult mental processes, memory—at least what is commonly understood by the term—plays a very important part. weak memory is an almost fatal obstacle to effective thought; but I am not comparing the worth of a good memory and a bad one, but of an average memory and one exceptionally powerful. I conceive that quite a large proportion of the profound thinkers are satisfied to exert their memory very moderately. fact, a distraction from close thought to exert the memory overmuch; and a man engaged in the study of an abstruse subject will commonly rather turn to his book-shelves for the information he requires than tax his memory to supply it. The case resembles that of the mathematician who from time to time, as his work proceeds, requires this or that calculation to be effected. He will not leave the more engrossing questions that he has in his thoughts, to go through processes in arithmetic, but will adopt any ready resource which leaves him free to follow without check the train of his reasoning.

It would be, perhaps, difficult to devise any means of readily measuring mental power in examination, or otherwise. The memory test is assuredly unsafe; but it would not be easy to suggest any really reliable one. I may remark that only those experienced in the matter understand how much depends on memory in our competitive examinations. Many questions in the examination papers apparently require the exercise of judgment rather than memory; but those who, know the text-books on which the questions are based are aware that the judgment to be written down in answer is not to be formed but to be quoted.

So with mathematical problems which appear to require orig-

inal conceptions for their solution: in nine cases out of ten such problems are either to be found fully solved in mathematical works, or others so nearly resembling them are dealt with, that no skill is required for the solution.—Popular Science Monthly.

Book Antices

Of the "International Scientific Series," the three following deserve the attention of physicians:

- rst. "Foods," by Edward Smith, M.D., LL.D. B. F. R. S., etc. The New Chemistry, by Josiah P. Cook, Jr., Erving
- 2d. Professor of Chemistry and Mineralogy in Harvard University.

The Conservation of Energy, by Balfour Stewart, LL.D., E. R. S., Professor of Natural Philosophy at Owens

3d. College, Manchester. With an appendix treating of the Vital and Mental applications of the Doctrine: D. Appleton and Co., N. Y.

Although designed for the general reader and for the purpose of popularizing topics with which every physician is supposed to be familiar. These volumes are worthy of perusal by physician, who will meet many familiar facts dressed in new and simple garb; but brought in relation with all the more modern aspects of science. While the medical student who as yet may be unfamiliar with much which they contain, will find them "royal roads" to kingly wealth.

Animal Physiology, by John Cleland, M.D., F.R.S., Professor of Anatomy and Physiology in Queen's College, Galway.

That the advancement and diffusion of scientific knowledge is fast superceding many departments of learning, like the dead languages, for example, and which were formerly considered essoutial both to culture and mental development, no one at all acquainted with the present aspect of current literature will attempt to deny. That no department of science has a more im-

portant relation to human welfare than the structure and functions of our own body, is generally admitted.

Aside from the text-books for colleges and schools, we have hitherto had no treatise on this important subject designed with special reference for the general reader. This little work of Prof. Cleland's has for its "principal object" to supply to readers, previously unacquainted with anatomical details, as complete an account as possible of the functions of the body,

Avoiding many technicalities of the college text-book, it is nevertheless surprising to see how much that is valuable the author has crowded into this little volume of 300 pages.

The first twenty-five pages are devoted to a classification of functions and tissues. Of the former, four categories are givenviz: the nutritive, reproduction, sensory and motor. Of the latter, connection tissue, white fibrous tissue, elastic tissue and adipose are considered, while the muscle, nerve and gland tissue are considered farther on in the body of the work. The definitions, without being over exact, are nevertheless philosophical and in accordance with later scientific data. For example, under the head of Reproduction, the process by which, through differentiation, one portion of an organism is set apart for the performance of a special function, which in lower forms involves in its performance the whole organism, is indicated.

"Vital energy is a force correlative with mechanical, chemical and other forces found in the inorganic world. * * * * * "Protoplasm is used to indicate, without much definition, the varieties of albuminoid substance found in the growing stages of the living elements of texture, and in the lowest forms of life."

Histology enters largely into the plan of the work. The illustrations being numerous and, for the most part, well executed. Altogether Prof. Cleland has given us a work not only for the general reader, but, really, for the medical student as he also indicates in the preface a "Compendium of Physiology.,"

Diseases of the Ear; by A. D. Williams, M. D. Robert Clarke and Co. Cincinnati, O.

And the title page further declares the book to be "illustrated with wood cuts, and one lithograph." And when we look upon that "one lithograph," we are filled with awe. Three small red

spots representing the natural and inflamed Membrana Tympani, show to what extent the art of medicine may be illustrated by the art of engraving. It looks like a very small thing to parade before the reader, especially when compared with the numerous and costly illustrations that adorn most of our modern scientific works.

Among the wood cuts we notice one on page 5 that represents a blood tumor of the auricle. That this condition is not frightfully frequent, nor greatly in need of an illustration, is apparent from what the author says:

"Blood Tumor.—When the auricle is mashed or injured in any way so that the blood-vessels in the cartilage, or beneath the skin are ruptured, extensive extravasation of blood takes place, which distends the auricle and gives it a tumor like appearance. Hence it is called a blood tumor; and as it is the result of an injury it is traumatic."

All of which is saying considerable for a very small thing, and illustrating it into the bargain. Two pages are devoted to this question, when the whole could be put into a nut-shell. We commend the following to the author as less verbose and equally plain: Blood Tumors.—When they occur upon the auricle either spontaneously or from traumatic causes, should be freely incised and afterwards treated by compression.

This of course would not swell the size of the book, nor would it compel the profession to spend money for many words representing few ideas.

The wood cut on page 25 showing how the ear should be examined—and copied after Troelsch—excites our compassion. The position of the surgeon is so absurdly awkward, that we feel a kindly pity for his aching back. How a sustained or accurate view can be obtained in that method, "no fellah can find out." Why the surgeon might not sit down and take things easy we fail to see,

After getting the speculum in position, the author insists that the meatus "must be illumniated," which information we receive with becoming humility. And then we are treated to a dissertation on the impropriety of attempting to use direct sunlight, as in that case "it is almost necessary for a man to stand in his own light."

"Then again, the sun is not always at command. Sometimes it is cloudy, at other times smoky, or foggy. At night too an examination would be impossible for want of surlight. Could the Rev. Mr. Chadband beat that? Could anything be more childish, or presume more on the natural good sense of the reader? What person of ordinary judgement would wish to invest his money in such baby talk?

Under this head the author does not mention the Hasenstein aural speculum. If in explaining how to examine the eye, he had forgotten to mention the opthalmoscope, he would not have committed a worse blunder. We commend the instrument to his attention.

"How to syringe the ear," is a chapter well written, but the author has not heard of the method by which a steady and uninterrupted stream may be thrown into the meatus. He says, "I have seen stout men tumble down during or after the syringing. I have seen both men and women vomit freely after syringing the ear And it never occurs to him that his method may be faulty. If he keeps on the way he recommends he will continue to see men and women tumble and vomit. A better method, every way, has been presented in a former number of this journal.

As a specimen of the authors simplicity, we quote page 35 "Foreign Bodies in the meatus. Any body may get foreign bodies into the ear, but children and young persons are chiefly the subjects of this kind of trouble." The profoundity of this remark is evident. As a specimen of the author's honesty, which by the way seems every where to pervade his writings we quote:

"Blisters behind the ear should be avoided in children under all circumstances. After the blister draws, the child in rolling its head presses the auricle down upon it with force enough to burst the vessicles. Their contents saturated with the blistering material spread over the auricle, and soon its whole posterior and even its anterior surface is completely covered with blisters. The child scratches these open; they bleed freely; soon the whole auricle is covered with blood which may run down on the clothing and into the hair. I have experienced two or three such 'bloody scenes' with anything but benedictions from the mother. Now I avoid blisters behind the ears in children." When an aural

surgeon has to take such lessons from indignant mothers because his com non-sense did not first instruct him in the better way, he cannot do better perhaps than acknowledge the truth, though it does not speak well for his scientific schooling. "Now I avoid blisters behind the ears in children" is a model sentence, but of an objectionable kind; and the book abounds in many of that sort. He means to say that he has ceased to apply blisters behind the ears of children. How he can go about dodging blisters, especially those that are behind the ears "in" children, we do not readily divine."

The chapter on Otorrhea is enlivened with the following, which clearly shows how little is known by the writer of pathology: "Is it safe to check suddenly the discharge from the ear of long or short standing? [We did not before know that length of the ear had anything to do with the question] This is a question among medical men; I do not know where it started, but certainly nothing can be more unreasonable. Can disease be safer than health? Certainly not." "For one, I am not afraid to stop any discharge from the ear. It is risky (!) to let it run on indefiniately." On page 240 the author says: "Some years ago I treated a gentleman for repeated attacks of otorrhea, which would apparently get well and then return again. Finally he was attacked with severe head symptoms, and died after several days of intense suffering. An autopsy was not permitted, but I have no doubt there was an abscess formed in the brain."

Accepting this view as true, would it be best to have the discharge running or stopped? did the patient in question suffer the fatal result while the ear was running or while the otorrhea was checked? Clearly the latter; and the retained purulent matter setting back upon the brain caused his death. And we can find a multitude of just such cases that show the folly of such exclusive local treatment.

But after these plain and, we trust kind, and truthful criticisms we are glad to say the work of Dr. Williams is full of many excellent things. The author is zealous and conscientiously in earnest with his profession. He does not write with sufficient care, and has not always the best information upon what he attempts to instruct us. On the whole, we commend the work to

our patrons as readable and instructive, and we also commend the publishers, Robert Clarke, and Co, for the style in which the work is presented.

CINCINNATI HOMŒOPATHIC FREE DISPENSARY.

Report for the month ending January 31, 1874: No. of patients treated, 140; No. of prescriptions, 473; No. visits, 69.

EYE AND EAR CLINIC

No. of patients treated, 68; No. of prescriptions, 230; Whole No. of patients, 208; Whole No. of prescriptions, 703.

PERSONAL.

The following recent changes and addresses have been sent in:

Dr. M. H. Phister, Ripley, Ohio.

Dr. Tom Brown, New Lexington, O.

Dr. J. N. Lucas has located in Shelbyville, Ind.

Dr. C. H. Evans has opened an office in this city on Lincoln Park.

Dr. C. B. Gatchell, Dr. J. J. Marvin and Dr. C. E. Walton will open offices in Cincinnati.

The next Session of the Pulte Medical College will open on the evening of Sept. 23, 1874. The college circular will shortly be issued; for copies of which or other information concerning the College, address J. D. Buck, M.D., Registrar, 305 Race St., Cincinnati, O.

The Cincinnati Sanitarium, which is advertised in the present No., is an institution under the control of Profs. S. R. Beckwith and W. H. Hunt. It is devoted to cases of insanity and other nervous diseases, with a special department for inebriates. It is rapidly filling with patients, and promises to be the most successful and popular asylum in the country.



THE

Cincinnati Mebical Abbance.

VOLUME I.] CINCINNATI, O.—FEBRUARY, 1874. [NO. 12.

Subscriptions to the Advance should be sent to Dr. T. C. Bradford, P. O. Drawer 1284, Cincinnati, Ohio.—\$3.00 a year, IN ADVANCE.

All business communications, relating to the publication or to advertising, should be addressed to Dr. T. P. Wilson, S. W. Cor. Seventh and Mound Sts., Cincinnati, Ohio.

"CINCINNATI MEDICAL ADVANCE, November and December numbers received February 16; what's the matter?"—American Observer.

The same that troubled the Observer in its infantile days when, owing to exhaustion, it doubled up like a bad case of colic and found strength to come to the surface only once in two months.

The first and hardest year of the ADVANCE is happily passed. We are proud to lay its initial twelve numbers beside the first year's issue of any of our contemporaries. We have found it one of the hardest tasks of our whole life to keep the project alive. A half dozen earnest men have given their time, money and work to the maintenance of this journal. We have now a fine list of paying subscribers and we expect to emulate the energy and success that so distinguishes the Observer.

Feb-1 683

This is a good time to suggest to our readers the propriety of sending promptly their subscription for the second volume of the ADVANCE. An immediate remittance will secure an Emerson Binder.

The Medical Union's criticism on Helmuth's Surgeon is being treated in a manner not at all encouraging to critics. It strikes us as an unfortunate exhibition of sensitiveness on the part of the friends of the distinguished author. The tone of some of his defenders is not likely to add much to the reputation of the work. We are quite sure Professor Helmuth would not indulge in slang toward even an unjust critic.

THE AMERICAN INSTITUTE OF HOMEOPATHY meets at Niagara Falls on the first Tuesday in June next. Everybody and everybody's wife are expected. Some distress is already shown lest the proceedings may be too convivial. For our part, we expect to go there and laugh right out loud. Pity the poor doctor who will not unbend when he gets a chance.

WE HOPE it will be remembered that the Homœopathic Medical Society of Ohio holds its next meeting at Springfield, the second Tuesday in May. Are the officers doing their duty, and are the committees hard at work? Shall we have a large and profitable meeting?

"THE WAR OF THE CRUSADERS" is besieging our door. The good women, in full force, have attacked the druggists and doctors. They more than suspect that doctors make more drunkards than they should. Well, it is our faith, that homœopathic doctors, except in very rare instances, are not open to the charge. The whole spirit and principle of our school are against the use of alcoholic agents in the treatment of disease.

SOMNAMBULISM.

In persons disposed to somnambulism, mental impressions of a very striking, and exciting nature, call into action in the early stage of the affection, as before intimated, the organs by which vocal sounds are produced, before those which are implicated in the movements of rising, and walking; and it is well known by all physiologists, that the muscles, upon which the voice is dependent, are very numerous, as well as exquisitely delicate in their nervous connection also; the result of which is, that they are affected by every emotion of the mind. Hence, the tones of the voice truly indicate the character of certain passions, or feelings; from the cry of distress, to the pathetic tones of the pleading singer, carrying along the sympathies of the hearer, even though the words be not understood. A particular tone of voice causes, without reference to words, a corresponding feeling, just as the vibration of one instrument, will harmonize with the vibration of another. Al! observation proves that the vocal, are the first organs affected, by any excitement of the brain. It is therfore by no means surprising, that persons in their sleep when excited by dreams, should moan, mutter, or even speak articulately. In this state the mind seems to struggle, in its connection with the body, to give utterance to its emotions; and it is reasonable to believe the greater the intensity of the dream-conceptions, the clearer will be the articulation of the voice, and the greater, also, the precision of the somnambulistic manifestations.

The sensibility of the eyes in somnambulism, was well observed in the case reported by Dr. Belden; when a degree of light so slight as not to affect the experimenter, was directed to the lids of the somnambulist, it caused a shock equal to that of electricity, and induced her to exclaim, "Why do you wish to shoot me in the eyes?" The sensibility of the pupils, however, is exceptional; as a general rule, the eye during somnambulism is insensible, and the pupil will not contract, though the most vivid flash of light be directed upon it. In this state, also, the condition of the eyes

is found to vary greatly; sometimes they are closed—sometimes half-closed—and frequently quite open; the pupil is sometimes widely dilated, sometimes contracted, at other times natural in appearance, but for the most part, as before stated insensible to light. It should also be observed, that although somnambulists will light a candle, it does not follow that in any sense they use it as a guide, or that they really see any thing by it. Their movements may still be purely automatic. This curious circumstance is finely illustrated by Shakespeare, who describes the Lady Macbeth walking in her sleep with a lighted taper in her hand:

"Gentlewoman. Lo you, here she comes! This is her very guise: and, upon my life, fast asleep—observe her; stand close.

Doctor. How came she with that light?

Gentlewoman. Why it stood by her: she has light by her continually; 'tis her command.

Doctor. You see, her eyes are open.

Gentlewoman. Ay, but their sense is shut."

An English writer mentions the case of Negretti a sleep-walker who would sometimes carry about with him a candle as if to give him light in his employment; but on a bottle being substituted, without hesitancy he took it, and thinking he had a candle carried Dr. Sloane tells of Casselli, another somnambulist, who he found on a time in that state, translating Italian into French and looking out the words in his dictionary. His candle being, purposely extinguished, he, although there was an abundance of light in the room, at once, began groping about, as if in the dark, and appeared wholly unable to resume his task, until he had relighted his own particular candle at the fire. In this case it will be observed, that he could only see with the candle he had himself lighted, appearing insensible to every other, excepting that on which his attention was fixed. The Archbishop of Bordeaux attests the case of a young ecclesiastic, who was in the habit of getting up during the night in a state of somnambulism, taking pen, ink, and paper, and composing and writing sermons. he had finished one page he would read aloud what he had wr ten, and correct it. He also in this state copied out pieces of music. and when it happened that the words were written in too large a character, and did not stand correspondingly over the notes, he perceived his error, blotted them out, and wrote them over again with great exactness. In order to ascertain whether the somnambulist made any use of his eyes, the archbishop held a piece of pasteboard under his chin, to prevent him seeing the paper upon which he was writing; but he continued to write on, without being in the least degree incommoded.

How are these curious anomalies to be explained? It appears to us, there is, a striking analogy between the actions as they are performed by the blind, and as they are executed by somnambulists, whose eyes are insensible to light. The exaltation of the sense of touch, in blindness is so great that some physiologists have conceived the existence of a sixth sense—the muscular sense-which communicates the impression, before the actual contact with objects. This muscular sense is supposed to adjust the voice, the ear and the eye, to the distance at which sounds are to be heard, and objects seen. It has been looked upon as a peculiar exaltation of the sense of feeling: this was the opinion of Spallanzani, Muller, Wagner, and other writers on the subiect. Of this, however, we can have no positive evidence; being devoid of the means of judging of the sensations of the Somnambulist, we have nothing but conjecture to guide us in comparing the blind with them. May it not be considered a fair probability, however, that the somnambulist while walking through intricate, or dangerous places, or performing complicated manual operations in the dark, may have his movements controlled and guided by this peculiar sense. May he not, in like manner, be made aware of his approach to obstacles that impede his way; and may not this sense, in a higher degree of development, lead to perceptions, which are ordinarily conveyed to the mind, through their appropriate and respective organs.

The sense of hearing, although it is at times, is not often suspended in the somnambulist; for, generally speaking; persons when in a state of hypnotism, will answer questions, and carry on conversation; but it is a remarkable fact, that the same ear which may be deaf to the loudest noises, will perceive even a whisper from one particular person, with whom the sleeper may alone appear to hold communion. In the Transactions of the Medical Society at Breslau, we meet with the case of a somnambulist, who

did not hear the report of a pistol when fired off close to him; another instance of an Italian nobleman, whose servants could not arouse him from some of his paroxysms of somnambulism, by any description of noise—even blowing a trumpet in his ear. On other occasions, his sense of hearing was so acute, that he would apply his ear to the key-hole of his door, and listen attentively to noises, which he heard from the distant kitchen. The sense of smell, as already observed, is frequently strangely altered, or, as sometimes appears, completely abolished. In a case reported, a snuff box filled with coffee, was given to a somnambulist, who took it with evident satisfaction, as he would have taken snuff, without perceiving the difference. The abolition of the sense of taste, is often quite as remarkable, as that of smell; the somnambulist being unable to distinguish sweet from sour, or wine from water.

It has been observed as another very remarkable circumstance, that persons in a state of somnambulism, have exhibited an extraordinary exaltation of knowledge. Composition, poetical or prose, is often accomplished with great facility; and a clue is occasionally found in this state, which leads to the solution of difficulties, that had obtained the mastery, while the individual was awake. Dunglinson, mentions the case related by Dr. Dewar, of a girl, who, when awake, discovered no knowledge of astronomy, or other sciences; but when asleep, could define the rotations of the seasons, using expressions most apt to the subject Some years ago, we were in attendance on a lady, who, during her somnolent attacks, talked incessantly, with rapid utterance, and all that she said was in poetic measure, ending in rhyme. What rendered the case still more inexplicable, was that during her waking life she was never known to compose a line of poetry or to exhibit a propensity Mr. Dendy, in "The Phylosophy of Mystery" alludes to the case of a lady somnambulist, in the city of Edinburgh, whose habit when asleep, was to recite lengthy poems; and it was curious, that each line commenced with the final letters of the preceeding.

However marvelous, there is nothing miraculous, in the question we have been considering, although upon it has been founded a host of stories, descriptive of persons in their sleep speaking unknown tongues, predicting future events and being

suddenly possessed of inspiration. The mental philosopher and the pathologist look upon the actions of the somnambulist, as doubtless, in some inscrutable way, prompted and governed by those dream impulses which the imaginary incidents passing through the sleeper's mind suggest. He is a dreamer, able to act his dreams. And, as Dunglison remarks, "His train of thoughts is usually directed towards one point, and this so profoundly, that, notwithstanding the activity of the imagination and the firm hold which it takes on the mind, no recollection is retained of the occurrences during sleep after the individual awakes, either spontaneously or on being aroused." exceptional cases, however, we learn that the somnambulist upon awaking has remembered with great acuteness the details Thus, in an instance related by Dr. Good, of of his dreams. what happened to a frierd of his, who, among other branches of science, had deeply cultivated music. On one occasion, during a somnambulic sleep, he composed a beautiful little ode and set the same to agreeable music; the impression of which was so firmly fixed in his memory that, on rising in the morning, he copied from his recollection both the music and the poetry.

Again, and again the question arises whether persons in a state of somnambulism are perfectly awake or in a condition of unusual or preternaturally profound sleep. The phenomena we have referred to—particularly those connected with the organs of nervous sensibility—lead us to believe that in somnambulism there is an increased intensity of sleep, producing an extreme degree of unconsciousness, in regard to the physical organization, very similar to that which we find in hysterical, cataleptic and many other nervous affections. The mental phenomena exhibited in this state are those connected with exaggerated dreams, and, as the physiology of dreams is by no means understood, even in a healthy state, still less can they be explained under the aspect of disease or pathological conditions.

One question of paramount importance at last presents itself—somnambulism being an affection likely to entail more serious diseases upon persons subject to it, how is it to be cured? When the general health is affected, reference should be had at once

to the family physician; if he is a man of scientific ability, as a rule, he will be enabled to very speedily put an end to all metaphysical mystery. In the young, however, and more especially where it is hereditary, attention must be paid to diet, regimen, a due amount of bodily exercise and the use of the shower-bath, in conjunction with the use of medication.

It is thought, also, that it may be resisted by inciting a strong effort of the will. We have an abiding recollection of the mode adopted to restrain our night rambles, having had an hereditary tendency to somnambulism in youth. We were put to sleep in bed with an elder brother, who was not affected, and, during the period of the greatest probability, one of our legs was attached to his, by a long ribbon of tape; in getting out of bed we were sure to waken him, and as the effect upon him was always startling, without ceremony he would drub us into a state of consciousness again. In this way, it is said, many cases have been cured.

But, it is not always safe thus to awaken a person during a paroxysm of somnambulic sleep. Macknish relates the case of a lady, who, being observed walking in her sleep into the garden, one of the family followed her, and, seizing hold, awaked her rudely; the shock was so great that she fell down insensible, and shortly afterwards expired. We feel satisfied that all sudden and abrupt transitions should be avoided. The state of sleep, apart from somnambulism, is one of repose; the organs of the body have their various functions appropriately modified; and there can be little question, that to abruptly arrest or interrupt the course of Nature and throw, as it were, a dazzling light upon the brain, the functions of which are in abeyance, is unwise, and may prove positively dangerous. Many persons, suddenly awakened out of a deep, natural sleep, will complain afterwards of severe head-ache; we conceive, therefore, that somnambulists, who may be considered as in a state of preternaturally profound hypnotism, ought not to be forcibly or rudely aroused; that the nervous system ought not to be subjected to any severe or unnecessary shock. The management and treatment of the somnambulist must, it is obvious, depend very much on age, sex, temperament and upon the cause in particularwhether physical or mental—to which the affection may be asascribed.

We now approach the boundary of our subject, and remark, in closing, that the most interesting fact connected with somnambulism is, that it brings palpably under our observation a preternatural state of being, in which the body is seen moving about, executing a variety of complicated actions in the condition, physically, of a living automaton, while the lamp of the human soul is burning inwardly, as it were, with increased intensity. And, in our opinion, this very exaltation of the mental faculties, proves incontestably, that the mind is independent of the body, and has an existence in a world peculiar to itself.

C. C. Bronson.

EPITAPH FOR A RESURRECTIONIST.

"Here lies an honest man, my brothers,
Who raised himself by raising others.
Anxious his friends from soil to save,
His converse still was with the grave.
To rescue from the tombs his mission,
He took men off to the physician;
And strove that all whom death releases,
Should rest, if not in peace, in peices.
So here he waits his resurrection,
In hopes his life will bear inspection."
—Blackwood's Mogazine.

Surgery.

HYDROPHOBIA—A DISEASE OF THE IMAGINA-TION.*

READ BEFORE THE CINCINNATI HOMŒOPATHIC MEDICAL SO-CIETY, OCT. 7, 1873, BY WM. OWENS, M. D.

A large number of cases of this alleged disease have been reported in our eastern journals and papers during the last five years. It may not be without interest to refer to a few of them:

M. Peter, a French physician, mentions the case of a man under his charge, aged 31, who "died in fearful spasms, of this sad complaint." The man was bitten by his own dog; but it was not known that the dog was mad, nor is it stated that he ever became so. The patient was treated by steam cauterization, hypodermic injections of atropia and the usual nervines and anti-spasmodics. An autopsy was had, and the result showed that the lungs and brain were highly congestive—probably the result of the atropia, for we have both conditions in the pathogenesis of belladonna.

Two deaths occurred in New York City, in 1869. The editor of the *Medical and Surgical Reporter* remarks that "there is no evidence that the dogs were mad or were in any way connected with the disease," and that "some of the symptoms were such as are not usually seen in hydrophobia." "The description of the symptoms looks very much as if the patient, in one case at least, had been frightened to death, and that the physician in attendance allowed him to die by mistaking the true nature of the case."

^{*}See the Dec. and Jan. Nos.

The year 1869 seems to have been peculiarly bad on dogs—both Europe and America contribute liberally to hydrophobic literature. Dr. Bouisson, of France, gives us his experience. It seems that he had bled a man who was dying of hydrophobia, and had wiped his hand with a handkerchief which was saturated with the "slimy saliva" of the dying man. On the fore-finger of the left hand he had a small open wound. It is not stated that any of the "slimy saliva" got into the open wound, but it is presumed that such was the case. But we will give his own very interesting account of his experience, premising that he had for several years made a specialty of the treatment of that disease, and ought to be a competent witness.

After being bitten, the Dr. -ays that "supposing that the malady would not be developed under forty days and having many patients to care for, I postponed from day to day my remedy, the vapor bath On the ninth day, being in my study, I suddenly felt a violent pain in my throat and another, still more violent, in my eyes. My body seemed to me to be so light that I felt able to leap to a prodigious hight and to remain suspended in the air. I seemed so sensible of the hairs of my head that. without seeing them, I could count them. In my mouth the saliva was constantly gathering. The air, blowing upon me, caused me dreadful suffering, and I tried to not look on sparkling objects. I had a constant desire to run away, and to bite, not men, but animals and all that surrounded me; and noticed that the sight of water tormented me more than the pain in my throat. I believe that by closing the eyes of a person afflicted with hydrophobia he can continue to drink. My attacks came on every five minutes, and then I felt the pain leave my finger and course through my nerves to my back."

Dr. Bouisson took a single vapor bath, at 57° centigrade, and was cured. If this is the l.ind of cases of hydrophobia Dr. Bouisson treated and cured, more than eighty of them, his success is not surprising—few persons would credit him with extraordinary skill on that account; a few doses of cannabis indica would doubtless have answered as well.

The Russian and vapor bath, at a high temperature, were the principal agents relied upon by Dr. B. He recommends that

seven baths be taken, one each day, as a preventive, ranging in in temperature from 57° to 63°, centigrade, and, if the disease makes its appearance, one bath at 57° has always been sufficient to cure. That may be good for a Frenchman, but not for It was tried upon a young man of that place. a Chicagoan. named Wm. Goodwille, who had been bitten by a dog not supposed to be mad, but who, nevertheless, in about seven weeks afterwards was attacked with convulsions. He was handcuffed and, amid vells, curses and imprecations the most apalling, he was forced into the bath-room. The narrator states that he behaved himself in a manner so terrible to witness that it froze the blood of those in waiting. The temperature of the vapor was soon raised to 125° F., when a body fell to the floor and all was quiet. The temperature was then increased to 136°, when the steam was shut off. The body was removed and in ten The editor remarks that "it is not minutes the man was dead. clear that this is a case of rabies canina"—nor rabies humana either.

Another, Clara —, of Germantown Av., Philadelphia, Pa., aged 16, was treated by Drs. Rosenberger, Morris and Van Buskirk; and so harsh and unnatural was this treatment that the gentlemen found it necessary to publish cards of explanation. Perhaps a certificte from Dr. Hartshorne would have answered better, as they are his friends and professional confreres.

Georgiana McReady, also of Philadelphia, was treated upon the same plan by Drs. Ronsdale, Striker, Burmeister and Hanston. She also died. She could drink water all the time, even up to the hour of her death. Wm. O'Leary died in Bellevue Hospital, New York, Jan'y 10th, 1869—reported hydrophobia and treated accordingly; died in ten hours after hypodermic in jection of morphine.

But it would be tedious to recite the numerous cases related during the last five years. The number reported which I have been able to find in the journals and newspapers of that time is forty-six; all but two terminated fatally. In thirteen of these cases it was not known or even supposed that the dogs were mad; in eight no statement upon the subject is made. In two the dogs were allowed to live some days, and no symptoms of hydrophobia were manifest. In four cases the patients had not been bitten by a dog of any kind within their recollection. One, a child, had been licked across the face, upon which, it is stated, there was a sore, by a pup—not mad at the time, nor is it stated that it afterward became so. The remaining eighteen had been bitten by dogs at periods ranging from eight days to seven months previous to the attacks.

Dr. Augustus Herman, Senior Surgeon to the Hospital in Prague and Professor Extraordinary of Surgery in the University of Prague, died of hydrophobia, Jan'y 7th, '74. He had been bitten slightly in the hand by a grey-hound, about seven weeks previously. It is not stated that the hound was mad.

The latest case reported from alleged hydrophobia is that of Mrs. Ada Agnes Noves, actress, of New York. She was bitten in the nose by a small terrier dog, on the 30th of January last, in the office of Sanford and Weaver's dramatic agency. The dog never, at any time, exhibited signs of hydrophobia, though carefully watched and examined by experts in dog fancying. The dog died the next day from what cause it is not stated. Certainly it could not have been from hydrophobia. Mrs. Noves unfortunately fell into the hands of one, Dr. Elliott, who, judging from the published accounts, was totally incompetent and unfit to take charge of such a case. His ignorant and pretentious manner in twice cauterizing the wound made such an impression upon the mind of the patient, that the slightest disturbance was at once interpreted as the accession of the expected attack. Mr. Sanford insists that the lady died of "sheer nervousness, and that the dog was not mad."

We will conclude this lengthy paper by reference to and quotations from the "Report made to the Academie of Sciences, of Paris," by M. Bouley in July, 1869.

In forty-eight departments reporting, 320 persons were bitten; 129 died, including every case in whom it was known that symptoms of hydrophobia were at any time developed. No case is reported in which a child under five years of age was bitten; the largest proportion of cases occurred between the ages of five and fifteen; while the proportionate mortality between these ages was very much less; showing that at this age, when imagination

was least active, there is least liability to an outbreak of the disease.

And in conclusion, will call attention to a paper* published in the *Brit. Med. Journal*, for October, 1872, by George F. Burder, as a concise statement of the points under discussion, and which will indicate the direction which the advanced thoughts of the day upon this subject are now taking.

THE HORRORS OF VIVISECTION.

How few facts of immediate considerable value to our race have of late years been extorted from the dreadful sufferings of dumb animals, the cold-blooded cruelties now more and more practiced under the authority of science!

The horrors of vivisection have supplanted the solemnity, the thrilling fascination, of the old unetherized operation upon the human sufferer. Their recorded phenomena, stored away by the physiological inquisitor on dusty shelves, are mostly of as little present value to man as the knowledge of a new comet, or of a tunstate of zirconium; perhaps to be confuted the next year; perhaps to remain as fixed truth of immediate value,—contemptible, compared with the price paid for it in agony and torture.

For every inch cut by one of these experimenters in the quivering tissues of the helpless dog, or rabbit, or Guinea-pig, let him insert a lancet one-eighth of an inch into his own skin; and for every inch more he cuts let him advance another eighth of an inch; and whenever he seizes, with ragged forceps, a nerve or spinal marrow, the seat of all that is concentrated and exquisite in agony, or literally tears nerves out by the roots, let him cut only one-eighth of an inch further,—and he may have some faint suggestion of the atrocity he is perpetrating, when

*The paper referred to will appear in a subsequent number.

the Guinea-pig shricks, the poor dog yells, the noble horse groans and strains—the heartless vivisector perhaps resenting the strength which annoys him.

My heart sickens as I recall the spectacle at Alfort, in former times, of a wretched horse, one of many hundreds; broken with age and disease resulting from life-long and honest devotion to man's service, bound upon the floor, his skin scored with a knife like a gridiron, his eyes and ears cut out, his teeth pulled, his arteries laid bare, his nerves exposed and pinched and severed, his hoofs pared to the quick, and every conceivable and fiendish torture inflicted upon him, while he groaned and gasped, his life carefully preserved under this continued and hellish torment, from early morning until afternoon,—for the purpose, it was avowed, of familiarizing the pupil with the motions of the This was surgical vivisection on a little larger scale. and transcends but little the scenes in a physiological laboratory. I have heard it said that "somebody must do this." say, it is needless. Nobody should do it. Watch the students at a vivisection. It is the blood and suffering, not the science. that rivets their breathless attention. If hospital service makes young students less tender of suffering, vivisection deadens their humanity and begets indifference to it.

In experiments upon the nervous system of the living animal, whose sensibility must be kept alive, not benumbed by the blessed influence of anæsthesia, a prodigal result of suffering results from the difficulty of assigning to each experiment its precise and proximate effect. The rumpled feathers of a pigeon deprived of his cerebellum may indicate not so much a specific action of the cerebellum on the skin, as the more probable fact that the poor bird feels sick. The rotary phenomena, once considered so curious a result of the removal of a cerebral lobe, were afterwards suspected to proceed from the struggles of the victim with his remaining undamaged and unpalsied side. can say whether the Guinea-pig, the pinching of whose carefully sensitized neck throws him into convulsions, attains this blessed momentary respite of insensibility by an unexplained special machinery of the nervous currents, or a sensibility too exquisitely acute for animal endurance? Bettter that I or my

friend should die than protract existence through accumulated years of torture upon animals whose exquisite suffering we can not fail to infer, even though they may have neither voice nor feature to express it,

If a skilfully constructed hypothesis could be elaborated up to the point of experimental test by the most accomplished and successful philosopher, and if then a single experiment, though cruel, would forever settle it, we might reluctantly admit that it was justified. But the instincts of our commom humanity indignantly remonstrate against the testing of clumsy or unimportant hypotheses by prodigal experimentation, or making the torture of animals an exhibition to enlarge a medical school or for the entertainment of students, not one in fifty of whom can turn it to any profitable account. The limit of such physiological experiment, in its utmost latitude, should be to establish truth in the hands of a skilful experimenter, with the greatest economy of suffering, and not to demonstrate it to ignorant classes and encourage them to repeat it.

The re-action which follows every excess will in time bear indignantly upon this. Until then, it is dreadful to think how many poor animals will be subjected to excruciating agony, as one medical college after another becomes penetrated with the idea that vivisection is a part of modern teaching; and that, to hold way with other institutions, they, too, must have their vivisector, their mutilated dogs, their Guinea-pigs, their rabbits, their chamber of tortures and of horrors, to advertise as a laboratory.—Dr. Bigelow.

Abbress,

THE OFFICE OF THE TRUE PHYSICIAN.

An Address delivered by Prof. J. D. Buck, at Hopkins' Hall, Feb. 12, 1874, at the Graduating Exercises of Pulte Medical College.

The history of the arts and sciences shows them to have reached their present status by gradual development. This development has been accelerated in one age by discoveries which give new interpretations to natural phenomena; reducing them to order through the recognition of natural laws: while nearly every age has added something to the general fund by way of facts and observation of phenomena.

The present age is characterized by one of those grand discoveries which upturns the very foundations of knowledge by striking at the ultimate relation of things. The scientific mind of the age is occupied with the adjustment of facts and phenomena to the new order of recognized law. The correlation of natural forces having been established, investigation has pushed its way into the realm of so-called vital activity; but the student of nature is met here at the very threshold of his investigation with obstacles which long ago ceased to interrupt his progress in the realm of physics.

Not many generations ago all natural phenomena were referred to genii and demi-gods, whose capricious will held supreme sway over the forces of nature, and whose anger was to be appeased by offerings of whatsoever was held most dear, even to

the sacrifice of human life. The elevation and conciliation of the gods was supposed to be in exact proportion to the degradation of human nature. The advancement of science has already, in civilized countries, wrested natural phenomena from the realm of chance and caprice, and replaced pagan rites by the study of natural phenomena, and though it is still the custom with many minds to ascribe great calamities, like wars or epidemics of disease, to an inscrutable Providence, because unable to appreciate the antecedent changes by which so great results accrew; still, even by the masses of men among enlightened nations, ordinary phenomena are attributed to natural causes; and just in proportion as theurgy has fallen into disuse, has human nature been elevated. The old relation being preserved, the terms have been reversed, till, to-day, men burn their idols in order to elevate themselves; and who shall say that human nature is not the gainer thereby.

The condition of man was never more helpless and down trodden than when in the Esculapian temples the office of priest and physician was combined, and when both the bodies and souls of men were held in bondage to the will of the gods and their vicegerent.

The most mysterious thing to man has always been his own body, and his own existence. While thunder and lightning, rain and floods, tides and even stellar phenomena, are referred to natural law, he regards with the old superstition his own existence. No wondor that the ignorant still ascribe some vague intelligence to disease which always seeks out the weakeast place in the organism as the point of attack, or to sin, which forever finds the unguarded point in the bulwark of human nature.

At first, the separation of the office of priest from that of physician worked to the advantage of the priesthood, for by teaching men that the body was worthless in comparison with the soul, in short, that it was the acme of wisdom to burn the former to save the latter; the office of physician was degraded and fell into the hands of "barber surgeons." But the human mind brought constantly to dwell on the immortal, rather than the physical nature, and prone to think and investigate, to doubt and deny, has so far freed itself from the condition of thraldom as to

make conscience the prime minister, and by diversity of creeds to approach more nearly to that condition of freedom which has been reached by society and governments of men. And so the true priesthood of to-day finds its highest office in teaching men how to live, rather than in preparing them to die. The elevation and importance of creed is slowly but surely giving place to the elevation of character, and mankind are led to seek less absolution from the past, which is regarded as uncertain, than prevention for the future, which is both possible and practicable.

We have hardly yet realized that self-assertion—a recognized part of individual natures, is also a part of human nature; and that in all respects the individual is the prototype of the race.

The office of physician, recognized at the earliest date of which we have any record as only second in importance to the highest function of man, could not long remain unrecognized, and in disgrace. With the progress of learning, medical sects sprang into existence; medical schools were founded, and the office of physician again claimed exclusive control of the bodies of men. For a time, the priesthood claimed priority over the bodies of the dead, as having been the tabernacles of living souls, and were enabled to enact laws declaring it a deadly sin to mutilate a dead human body, but the doctors triumphed at last, until, elated and even brutalized by success, from dissecting the bodies of the dead, they proceeded to dissecting the living. For years, the medical school at Montpelier received its annual tribute of a criminal to be dissected alive for the benefit of science. The love of life is strong in the human breast, and long after people begin to doubt the efficacy of prayers to purify the degraded life, or arrest the torments of the future, will they cling to the belief that somehow the doctors have some mysterious power over the life of the body. The arrogance more or less manifested by medical sects to day is only equaled by sects in religion who believe themselves the chosen people of God, and who hold up the cross or the Koran in one hand, and the sword in the other, as the only alternative to the infidel.

Even so does the doctor still hold up to his confiding patient the bolus or pellet in one hand and a death's head in the other; and the masses of mankind believe themselves compelled to choose between them, unmindful of the fact, that all who take them die sooner or later, and that not unfrequently those who take the most drugs die the quickest, and I might add the corollary, those who take the least live the longest!

So long as men believe that the priest can grant them absolution will they violate the moral and spiritual laws of their being, and so long as mankind believe the doctor or his drugs can cure disease will they violate the natural laws upon the observance of which health depends; and as spiritual purity is rather the reward of continual well-doing than the result of repeated lapses into sin, with as frequent absolution, so is health secured by the observance of those conditions upon which the harmonious action of the vital forces depend.

What is then the office of the true physician? If medicines do not cure disease; if most diseases are not only self-limiting, but if left to themselves will disappear spontaneously, by the natural recuperative energy of the organism; what, we may ask in all sincerity, is there left for the physician to do. I answer vastly less of "drugging" and "doctoring" than either he or the community have been wont to imagine; vastly more of the study, observation and adherence to nature's laws than has yet been achieved by any one.

If by giving man higher ideas of his own destiny, and the possibility of achieving a noble life through the exercise of his higher faculties and the subjugation of his lower nature, the office of the priesthood has risen 'til it is co-existant with man's welfare and destiny; so must the office of the true physician be more and more in the future, to teach man reliance on the laws of his physical being, and to depend upon their observance for vigor of body and a green old age, rather than upon filthy drugs, which can never restore a squandered vitality or renew a blighthed youth.

And as we see in later times the true priest and the true physician coming back to the same level from which they departed centuries ago, and working together in one common cause; not for the degradation of the body of man, nor the subjugation o

his will and his spiritual nature, but for his spiritual elevation and moral and intellectual freedom and purity.

That what is here stated is true, is shown by the history of inductive sciences and the intellectual development of the race, no less than by consulting the signs of the times. But as there is still a priesthood which plays upon the credulity of human nature and will continue to prey upon it so long as ignorance and credulity remain; so are there men in the garb of physicians, although unworthy of the name, who find in the credulity and infirmities of human nature ample fields for speculating in human woe and misery.

Of this latter class, every community has its representatives, who are constantly discovering some royal road to health other than that which nature has provided; some panacea to restore the vigor of departed youth; some cosmetic to rival the bloom of health, and by appealing to the fears born of bodily infirmities, and excited by imagined dangers, they fleece their unsuspecting victims; not alone of all worldly possessions, but of what is more valuable still, their remaining health. It is a weakness of medical men, and especially of medical sects to claim patents for their peculiar doctrines or appliances. The charlatan would persuade his willing victims that he alone is in possession of some secret, entirely unknown to the medical world, which has been procured at great cost of time and money, and which must be charged for accordingly; and by so appealing to his patient's fears, and magnifying his danger, he amasses a fortune, where an honest physician would barely gain subsistence.

Again, I have heard Homœopathic physicians charge theft upon their Allopathic brethren. because many of the more enlightened among the Allopaths refuse to mix drugs indiscrminately in their prescriptions, use aconite and belladonna which are supposed to belong exclusively to the new school, and administer a few drops of a tincture in a glass of water, a la Homœopathy. On the other hand, it is charged by Allopathic physicians that Homœopathy is played out, because a prescription for some drug stronger than the 200th potency is sent to the druggist by a Homœopathist, and that when the Homœopath has

a case that is really sick, or really accomplished anything toward the restoration of health, he administered drugs a la Allopathy.

I am of opinion that the better educated and closest observers of either school would not claim that the curative power rested in any drug, given in either large or small doses; that, although either might under certain circumstances assist nature by working with her and in conformity to her laws, the smaller the quantity and the simpler the appliance, the better for the organism, and that it would be infinitely wiser to avoid the causes of disease than to wantonly or ignorantly incur the consequence of a violation of the laws of health, under the apprehension that the doctor could somehow get the better of nature and cheat her of her just dues. And so far as any prerogatives or patents on knowledge or scince are concerned, they are simply dead letters, and ropes of sand to the earnest and conscientious student of medicine. While the student of to-day is ever ready to accord all praise to the bold explorer into untrodden depths and solitudes of nature, he claims the right, and exercises the privilege, of following or diverging from the path at first marked out. The right of discovery may pertain to lands, through ejectment of a weaker race, to mechanical arts through outlay and a moneyed value; but no patent can long close the doors of knowledge to the earnest student, and it is the hight of folly to assume them, when the pages of literature are open to all who read, and when personal ambition seldom aspires to oblivion.

The knowledge of which mankind most stand in need of today, is a knowledge of the laws of their own being. The study of the natural sciences is fast superceding that of the dead languages. The study of physiology lies at the foundation of all those great social problems which are agitating the masses and calling forth the best thought and the noblest energies of the age. The final adjustment of these questions, so vital to society, will not take place until the scientific study of human nature is undertaken by those who frame our laws and mould society. The relation of the sexes has been determined, before any legislative enactment, by physiological law, and no social problem concerning the relations of sex can be otherwise permanently adjusted than in accordance with nature's irrevocable decrees. It is the office of the true physician to aid in the adjustment of these great questions, by doing all in his power to diffuse a knowledge of these laws among the masses.

Called upon continually to repair the injuries arising from violating the laws of life, he may become in his daily rounds a very minister of health indeed; but, to do this, he must strive continually to be in possession of that knowledge for which his confiding patrons are ever ready to give him credit.

It is one of the greatest achievements of modern science, to show that the moral and intellectual development of the race conforms to the same laws and is evolved in the same order as that of the individual. Hence it is, that the scientific study of human nature must be preceded by a scientific study of individual nature, and it is because the order has been reversed that no greater progress has been made. While it is undoubtedly true that the greater includes the less, it is also true, though not always apprehended, that, in organic structure and function, the greatest complexity can only be comprehended through a previous knowledge of the simple. The most complex organic structure is society, which is an aggregation of individual organisms of the highest known type, the individual members of which have something in common with lower forms.

The position of the true physician, then, is an advanced position. He will not be a hot headed radical, nor a fossilized conservative, but he will exert every energy to comprehend both his own mission and the destiny of his race; and, by attainment in all departments of knowledge, no less than by a pure and upright life, will he strive to merit the appellation of a priest in the temple of humanity.

Here, then, is the office of the true physician: the scientific study of human nature; the relief of human suffering; the elevation and amelioration of mankind. If he is fitted by nature and qualified by education for such a mission, he will rank among the benefactors of his race. He will not be disheartened by misfortune nor, what is more dangerous by far, will he be spoiled and enervated by prosperity. His reward will be his

work, to which he will be impelled by an impulse which is the co-ordination of all the faculties of his manhood, and he may not rest with perfect confidence in the final judgment of fellow-men, for

In the cycles of the ages
Truth comes uppermost at last,
And the saviors of the present
Are the martyrs of the past.

College Commencements,

PULTE MEDICAL COLLEGE.

It seems but yesterday that the foundations of this institution were laid, and here we find ourself recording the proceedings of its Second Annual Commencement.

Thursday evening, Feb. 12th, a large audience gathered in Hopkins Hall. The Dean, Prof. Beckwith, presided. Prayer was offered by Rev. Mr. Beecher. Prof. Buck then gave an address found on another page.

Hon. Bellamy Storer then addressed the graduating class in language both eloquent and truthful. He then conferred the degree of Doctor of Medicine upon the following gentlemen: Ewell Ford, Ind.; R. N. Sheldon, Ohio; A. H. Mahaffey, Ohio; M. H. Phister, Kentucky; J. J. Marvin, Ohio; E. W. Crooks, West Va.; C. B. Gatchell, Wisconsin; A. C. Recker, Ohio; F. W. Stillwell, New York; A. V. Williams, Ohio; C. F. Wymond, Indiana; C. S. Williams, Ohio; S. F. Edgar, Ohio; C. E. Walton, Ohio; O. W. Lounsbury, M. D., ad eundem, Ohio; E. Webster, Ohio.

The following valedictory address in behalf of the class was then delivered by C. E. Walton.

THE DIVINITY OF SCIENCE.

Were we to call upon some child, well taught in Scripture lore, and ask him, Where is God? he would answer, in child-like faith, Why, God is everywhere. Should we call upon some sage, and ask him, Where is Force? he would answer, with discerning wisdom, Force is everywhere. The child through faith, and the sage through wisdom, fills space with a persistent entity, which is manifest through the myriads of transformations which occur in each second of time. It is persistent, because eternal; eternal, because persistent: its residence is matter, and Science its interpreter.

Is Science then divine? If its mission may bear evidence, then, indeed, it is divine; for it dispels the fears of ignorance and bestows the peace of knowledge; it smooths the thorny paths of life, disarms Death of his terrors and prepares for whatever is beyond.

"But Science is unorthodox!" some objector is heard to exclaim. If this indeed be true, the converse is no less true—that Orthodoxy is not Science; and if it is building for eternity it would better change its base.

Science is the child of no hypothetical deity; it proclaims the religion of reason, and faith and hope and charity are its lessons to the world. It speaks through law, and love for it leads to obedience to the law. The law is not its master, but its servant, through which man learns the how, but can never learn the why.

Science teaches faith, through the immutability of consequents following a similarity of antecedents; it teaches hope, through the continuous lifting of the vail between what is, and what shall be; it teaches charity, through the universal bond which binds together the interdependent interests of humanity. "The greatest of these is charity," for charity works toleration, and

through toleration Truth secures the avenues of the mind.

To many a mind hedged in with hereditary views, Truth—

"Is a monster of so frightful mien As, to be hated, needs but to be seen;" And even when familiar with her face, It turns away, too timorous to embrace.

But Science does not swell the number of her votaries with those who are too timorous to accept the truth; she leaves them to go their way, yet even then her philanthropy causes her to bless. Her faithful worshipers are those seeking humbly after truth, living nobly in the truth, dying grandly in the truth. The spread of truth is the mission of Science, and through it will she bring peace on earth and, from man toward man, good will.

The cause of Science is dear to every lover of his race; for he sees in it emancipation from the bonds of superstition, freedom from the toils of conventionality and regeneration of the world of thought. No shallow creeds restrict the range of vision, and respectability does not depend upon a unanimity of ideas; no well-turned prayers are necessary for its growth, and its benefits do not accrue for the sole profit of the elect; no priest-craft expounds its tenets, no ritual formulates its worship, no "miraculous conception" attests its virtue.

Science comes to man as the herald of a higher life; she teaches him to subjugate his passions, to refine his affections, to cultivate his intellect, through no servile fear of a "wrath to come," but through an ennobling purpose to endow each succeeding generation with the impress of a fuller manliood. It is to Science that we are too look for the development of the race. Religion and Politics will do their part, but Science must be their guide; and under her leadership will men ultimately be brought to acknowledge, what they are now somewhat loth to concede, that Science is divine.

GENTLEMEN OF THE FACULTY:

The labors of another year are closed and, for the second time in the history of your institution, are the doors open for the exit of your graduates.

Appreciating fully the efforts of those who have labored so

assiduously for our instruction, the class of '74 would take this opportunity to publicly acknowledge its indebtedness and to bear willing testimony of your faithful discharge of duty: we express in words what we hope our professional career shall prove in action.

We omit as superflous the customary regrets at parting which figure so extensively upon occasions of this nature—they are generally more imaginary than real. But we cannot omit, in justice to ourselves, the expression of our interest in the welfare of our college. Situated in this honored State of Ohio, in the midst of the teeming population of a city known far and wide for the culture of its people, we look to it to become one of the corner-stones of the temple of medical science. The West furnishes no better location for a medical center than is found here, and great would be the mistake not to improve the advantages which this city affods.

We look to you, gentlemen, to finish the work so well begun. May the sun of prosperity ever shed upon you its most genial rays, and the now tender plant grow into a rugged tree, withstanding all adverse storms and challenging the admiration even of its enemies!

My CLASSMATES:

We are standing upon the threshold of our professional life. Ere crossing, let us pause and look around us. Over paths not altogether smooth we have worked our weary way and the immediate object of our toil is won. But stretching out before us, we see on either hand new roads leading onward to the future, and the indications are that we have still something left to do; we certainly cannot weep for the absence of worlds to conquer.

There is a saying familiar to you all, that "whatever is to be, will be;" and many people, given to drifting with the current, subscribe to this platitude as though it contained the condensed wisdom of ages, and they fold their hands and float, leaving fate to direct their course. The truth is, that whatever will be, depends upon what is, and Fate is but a sorceress, leading men to waste their lives.

We may not achieve fame or fortune, but this will not be because "it was not to be," nor because kind Providence blighted our future in order that we might become guide-posts for those who follow. Our future will be largely what we make it.

Success depends upon the end aimed at, not upon the end attained; and when we have brought our labors to a close, none will know as well as we whether our lives have culminated in success. As we leave our college walls to enter upon the active business of life, let us well determine what shall be the end for which we strive, that our efforts may take a definite direction and our success be less uncertain.

We owe much to the world—let us see to it that we meet our obligation; see to it that the world be richer for our toil and better for our example; let us so live that we shall merit that noblest epitah ever won by man, "He hath done what he could."

In the absence of Prof. Pulte, the President of the Hahnemann Society, Prof. Wilson delivered the diplomas. He remarked:

GENTLEMEN: It is my duty and pleasure, in the absence of your President, to present you these diplomas unanimously awarded you by the Hahnemann society of the Pulte Medical College, of which Society you are honored members. And, having faithfully observed all the rules of this Society, having successfully passed its curriculum of weekly examinations and having received the degree of Doctor of Medicine from your Alma Mater, you are hereby declared worthy to receive the diploma of this Society.

Gentlemen, doubtless, among the most pleasing of your future recollections of the present will long linger the memory of the happy hours you have spent in performing the duties and enjoying the privileges of this Association. Few events are likely to occur which will yield you greater pleasure than the greeting which you will in future years give to your companions and fellow-members of the Hahnemann Society.

I would not chide a thing so natural to the human heart. I would urge to cherish you with sacred care the memory of such pleasing ties. But let me warn you agrinst a prevalent and mischievous

error into which too many fall. There is, believe me, one Fatherhood of God in heaven and one brotherhood of man on earth. All cliques and clans, all sects and tribes, are agents that do violence to the fundamental law of our being, which makes of one blood all the races of men that dwell upon the face of the earth. Now, it is true, that religious. political, social and all other organizations that classify men and women into sects, associations and parties, serve to narrow our conceptions of a true humanity. And just so long as you obey the behests and are guided by the principles that pervade such organizations, you will never rise to a full realization of your relations and duties toward your fellow-men.

Your future studies must be so directed as to endue your hearts with r ght feelings toward all mankind. As physicians, you are the lordly almoner to all. No man can be above or beneath your ministrations. And from your professional standpoint there can be no distinctions made between Jew or gentile, barbarian or civilized, white or black.

The tendency of the age in which we live is to eradicate the artificial lines which separate men from one another. And this is due, undoubtedly, to the fact that scientific questions are leading the great world of thought. Just as fast as superstition and error loose their sway, just so fast men come to see the grandeur, harmony and unity of nature. From the primal star-dust, "void and without form," to the ripened world, teeming with vitality, there is to be seen operating the great law of evolution; which law binds in indissoluble bonds the remotest to the nearest, in a universe whose center and whose circumference are as unknown to us as they were unknown to the shepherds of Chaldea.

Science, therefore, offers you a fruitful and useful field of study. The more deeply you drink in the all-pervading spirit that permeates the universe, the more completely will you be qualified for the duties of your professional life.

With "heart within and God o'er head," you have but to make your destiny a lasting blessing to your fellow-men.



CLEVELAND HOMŒOPATHIC COLLEGE.

The College held its commencement exercises in the lecture room of the College, on Prospect street, Wednesday afternoon, February 11th.

Prayer was offered, when President W. D. Godman, of Baldwin University, Berea, delivered the annual address.

At the conclusion of Professor Godman's address, Hon. Geo. E. Willey conferred degrees upon the following persons, closing the ceremony with appropriate remarks: S. W. Aldrich, Ohio; John Burrough, Indiana; A. B. Botsford, M. D., New Jersey; John Boyd, Pennsylvania; J. Burling, New York; J. C. Campbell, Ohio; Millie J. Chapman, Pennsylvania; S. E. Chapman, Ohio; P. M. Cowles, Ohio; G. B. Durand, Wisconsin; Mary W. Ellis, Pennsylvania; Henry C. Frost, Ohio; Geo. H. Gilbert. Ontario; Kate M. Goss, Ohio; Mrs. L. P. Grissiths, Ohio; L. G. Griste, Ohio; I. Kimberling, Ohio; John A. McGill, Ohio; Henry L. Obitz, Illinois; A. L. Olmsted, Wisconsin; M. T. Runnels, Indiana; L. P. Sturtevant, Pennsylvania; O. R. Shannon, Pennsylvania; Chas. E. Smith, Michigan; E. H. May, Ohio; J. H. Whitehead, Ohio; N. E. Wright, Ohio; J. H. Young, New York; E. B. Nash, New York; Kate Shepardson, Michigan; J. H. Jackson, Ohio; ad eundem, F. F. Faber, M. D., Georgia.

Professor G. J. Jones delivered the valedictory.

DETROIT HOMŒOPATHIC CGLLEGE.

The third annual commencement of this medical institute took place in College Hall, this city, on Thursday, February 19th.

The degree of M. D. was conferred upon the following members of the graduating class: James Alvan Cook, Wisconsin; Edgar A. Bagley, Michigan; Jerome E. Cross, Massachusetts;

David Foote, Michigan; Geo. B. Gregory, Michigan; Edmond Ames, Pennsylvania; Charles H. Colgrove, Connecticut; Roscoe C. Pinkham, New York; Geo. W. Powell, Ohio; John F. Wage, Canada; John T. Thatcher, Kansas; James W. Moliere, Michigan; Charles E. Ross, Michigan; Julius G. L. Lutz, Michigan; Austin Mitchell, Wisconsin; Josiah R. Nunn, Ohio; Richard M. Knox, Indiana; Wm. H. Stover, Ohio; Geo. S. Catlin, Ohio; Byron Defendorf, Michigan; Wesley J. Mills, Michigan; Peter Soans, Michigan.

The honorary degree of M. D. was conferred upon the following gentlemen: Wm. C. Clemo, M. D., Michigan: Franklin B. Smith, M. D., Michigan; Wm. C. Doane, M. D., Pennsylvania; James H. P. Frost, A. M., M. D., Pennsylvania.

The valedictory address was delivered by Dr. J. W. Moliere, of Kalamazoo.

Misellaneous.

PAIN AND ANÆSTHETICS ETHICALLY CONSIDERED.

It is extremely characteristic to observe that the opposition to the use of chloroform in child-birth comes almost entirely from men. They have personally no objection to take it, when their own teeth are to be drawn or their broken limbs reset; but their sense of right and wrong is fearfully outraged if women, in the throes of the greatest anguish mortality can know, seeks the aid of the assuager of suffering which science has provided.

Drs. Meigs and Ramsbotham have made themelves foremost in this unmanly argument, and I propose shortly to notice their most prominent ethical objections—for the physical one experience has already overwhelmingly overthrown, it being now fully



proved that chloroform is not only harmless but even absolutely advantageous in child-birth.

"Pain," says Dr. Meigs," is a most desirable, salutary, and conservative manifestation of life-force, and should not therefore, be annulled." But certainly then, the same argument would hold good at every sufferer's bedside (male or female) and the physician who gives laudanum or opium in acute suffering would be equally guilty with one who gave chloroform in child-birth. If this principle were faithfully carried out, it would be wrong to put creosote in a decaying tooth, because the tortures of decay are nature's "manifestations of life-force."

Again, he says that to make a woman insensible by chloroform is really to make her "drunk and incapable," and that any pure, high-minded woman would prefer physical agony to mental and moral degradation. To use a vulgar truism "What is sauce for the goose is also sauce for the gander," and, if so, then what dispensation have men to escape the same moral degradation. And is it really more wicked for women to annul the pains of child-birth than it is for them to become insensible during surgical operations common to both sexes?

Ramsbotham says that to destroy consciousness is to annihilate for a time the proudest and choicest characteristics of humanity. Very grand words indeed, but the truth is that physicians have been doing this very thing for centuries with mandrake, laudanum, etc. And even Nature is here equally guilty, for it is in unconsciousness the mighty renews our strength, and when the agonies of physical suffering become intolerable she invariably throws the patient into an insensible condition. Nay, the Creator, when he would perform that wonderful operation recorded in Gen. ii. 21, threw Adam "into a deep sleep," to avoid unnecessary suffering.

The last argument, and the one which has probably influenced women the most, has been hurled from the pulpit. Many a reverend clergyman has asserted that to remove the labor-pains was un-scriptural and irreligious; and frail, tender-conscienced women meekly submitted to the narrow, bigoted dictum which condemned them to agony unalleviated.

The intense selfishness of man was never so shamefully exempli-

fied. Like the old woman who got her living by skinning eels and who arrived at the end of ten years at the conclusion that "they had got used to it," so men having no selfish interest in the diminution of child-bed pains, were certain that after so many hundreds of years women had got used to it; and even flattered themselves that it had become what has been poetically called "the pleasing pain which women bear." It is gratifying, however to record that the great and good Dr. Chalmers stood "shoulder to shoulder" with Prof. Simpson, and advised that such "small theologians" should not be heeded.

All great discoveries have had to run a gauntlet of popular fanaticism. Even Dr. Rowley condemned vaccination. "Small-pox" he said, "Was heaven-ordained, but cow-pox was a daring and profane violation of our holy religion." When winnowing machines were first invented, there were religious fanatics who turned from the Communion-table those who irreverently used what they called "the devil's wind;" and so, though chloroform has not come as a supernatural revelation—though it was discovered on just the same level as new methods for dyeing or bleaching calico—though no angel has spoken and no prophet brought with special message—though there is nothing sublime in finding oblivion in a pocket-handkerchief, nor elevating in inhaling it through an India-rubber tube—yet none the less has humanity received a most stupendous "indulgence," a most divine amelioration of its severest suffering.

No one can deny that men have shown a most selfish desire to monopolize this beneficent discovery; and woman easily alarmed, when the terrible words "irreligion" and "unfeminine" are used; has hardly dared to claim her portion of exemption. Still I believe a few years will see the pains of maternity a tradition, and the cry of the woman in travail will be lost in the Te Deum of a comforted and assuaged womanhood while "Anæsthetics will eventually control all forms of bodily suffering, no matter where situated."—Golden Age.

Feb-3

ALTERNATIONS IN THE INTENSITY OF DISEASE.

The diminution of the efficacy of vaccination, as a preventive of small-pox, has been the subject, at first of incredulity, and afterward of surprise, to the medical world, and even to the non-professional public. The causes of this change have been sought in the nature of the vaccine matter. But it has not been demonstrated that taking the matter anew from the cow is to restore the primitive efficacy of the remedy.

Without wishing to call in question with the profession the chances of discovering an explanation, drawn from the domain of medical and physiological facts which they occupy, I desire to point out a consequence of the fundamental law of heredity, as applied to the phenomenon in question. In order to understand the subject in its true aspects, it will be well, in the first place, to recall a fact in relation to epidemics.

Medical history proves, on the subject of epidemic and contagious maladies, a marked fatality at the time of their first appearance, followed by a slowly-decreasing violence from generation to generation. In our own memory the epidemic visits of cholera have diminished in frequency and intensity within a short period of time. Previously to our day, syphilis and varioloid, two infective diseases, differing in their nature and in their modes of transmission, had presented the same phenomenon—extreme intensity at the beginning, diminution from period to period.

If this diminution belonged to the nature of the maladies, populations infected for the first time in the nineteenth century should have suffered less than those affected in previous centuries. But this is not what has occurred. When a savage population has recently been visited, for the first time, by the infection of small-pox, it has suffered as much as the Europeans at the beginning of the malady in Europe. It is the fact of invading a new field which renders epidemics destructive.

Upon a little reflection, the reason of this is easy to comprehend.

When an epidemic falls upon a population for the first time, the greater part of the individuals disposed to receive the disease are attacked. They die in great numbers. Subsequent births are the off-spring of persons who did not contract the disease, or, at the least, who contracted, yet survived it; that is to say, of persons better constituted than others to resist the disease. By virtue of the ordinary resemblance of children to their parents, the new generation will be less disposed to suffer from the epidemic. There will be then a diminution of the violence of the disease or a temporary disappearance. For the most part I presume a diminution, because that the resemblance of children to their grandparents (which is called atavism) is not very rare, and tends to reproduce certain forms or physiological conditions in families. At the end of two or three generations, that special cause for the return of the epidemic is less felt, the resemblance to a great grandfather or ancestor still more removed, being more rare than the resemblance to a grandfather. But then the bulk of the population will no more have been exposed, by itself or by its fathers and mothers, to the malady in question, or will have been but slightly exposed. Thus is constituted anew, by the very purity of the disease, a proportion of individuals who have not been submitted to the proof of the infection or of whom the parents have not been submitted to the test; a proportion on whom the malady will be severe, and among whom the law of selection will recommence to operate.

The law of events (force des choses) introduces then a variation in the intensity of every disease, except that it does not act upon diseases of which people rarely die, or which fall principally upon the aged. The more fatal a disease among youth, the quicker is the work of the law of selection and the more prompt the diminution of the malady. If a first invasion, for instance, destroys a moiety of the population below marriageable age, the survivors should be very little liable, in the physical or physiological conditions, to the disease, and children born to them will profit by their immunity. If



disease is less fatal, the purification will be less We thus discover, I do not say the cause, but a cause why pestilences and other very serious maladies attack populations at intervals, and are, as it is said, epidemic; while certain diseases less serious, even among maladies which attack youth, rule from year to year in a mode more continuous.

Such are the clear laws—one might add, the rigid laws—which rule in diseases, to produce aggravation or diminution, independently of all these natural circumstances. Without doubt there may be other circumstances, physical or physiological, and physicians may discover preventive or curative means which exert influence upon them. But the incessant effect of heredity, and of the law of selection, exists, notwithstanding; and, when other influences cannot be demonstrated, we may be assured that heredity and selection perform their part.

We now see that the efficacy of preventive means, such as vaccination, should also vary. When Jenner discovered the utility of vaccination, the small-pox had in a slight degree lost, in Europe, its primitive intensity. The people who then existed proceeded from many generations which could, thanks to the process of selection, passably resist the epidemic. Individuals were not so readily affected as at the origin of the disease, or, if they had the disease, they succumbed to it in a smaller proportion; or, vet again, those who survived rarely contracted the disease a second It was supposed that those who had the disease by inoculation were sheltered from a repetition, and the dangerous practice of inoculation would not have continued, but for this opinion. Vaccination, then, came at an epoch when the population found itself in ameliorated conditions with regard to epidemic smallpox. Practised with ardor, it had the effect to render small-pox very rare. But, precisely because it had become rare in the generation which immediately succeeded Jenner, in the generation which issued from that was found a majority composed of persons who had not been exposed to the epidemic. Among them must have been some persons who, naturally or by atavism, were disposed to take the infection. From that cause a certain renewed sensitiveness (recrudescence), which vaccination could less easily control.

In other words, after two or three vaccinated generations, the European population having been slightly exposed to the small-pox, found itself approximating to the conditions of a population in which the disease appears for the first time. The attack is not altogether so violent, but the return is evident. All means of resisting it which would have sufficed fifty years since have become less efficacious.

To sum all in general terms: heredity and selection must produce an alternation of intensity and relief in diseases. That variation must be more marked when the disease in which it takes place is more fatal, and especially when it attacks youth. Curative or preventive means, which are sufficient in periods of light visitation, lose a portion of their efficacy at the aggravated periods. And this rule applies particularly to the use of vaccine as a preventive of small-pox.

The works of Darwin being now familiar to physicians, it is probable that many among them have considered the effect of the law of selection upon the variation of intensity in maladies. I doubt, however, whether they have given attention to the consequences relative to vaccination. It is this which has led me to bring within the range of medical investigation an application (perhaps novel) of the ideas of the celebrated English naturalist.—Pop. Science Monthly.

EXPERIMENTS UPON THE BRAIN.

An important paper was read before the British Association, this year, by Professor Ferrier, on the localization of the functions of the brain. He alluded to the popular belief that different parts of the brain subserve different functions of the mind, and also mentioned the opposing views of Brown Sequard and

others that no part is devoted to any particular function. Extensive tracts of the brain may be destroyed without any resultant effect on the mind. Other lesions have, however, an opposite significance. Thus, the disease of a particular part of the brain is followed by aphasia, or the inability to express one's self in words. Certain tumors or lesions in particular parts of the brain give rise by their irritation to epileptiform convulsions of the whole of one side, or of the arm or leg, or of the muscles of the face; and, from a study of the way in which these convulsions exhibit themselves, he became able to localize these lesions exactly.

Three years ago Fritsch and Hitzig, two German physiologists, by passing galvanic currents through the brains of dogs, produced results in the flexion, extension, adduction, etc., of the limbs through muscular contraction. Dr. Ferrier adopted a similar method in experimenting on the brains of various species of animals, being instigated thereto by a knowledge of the fact that nervous diseases, as epilepsy, chorea, etc., are produced by irritation of portions of the brain. He employed one hundred individuals of the species fish, frog, fowl, pigeon, rat, Guinea-pig, rabbit, cat, dog, jackal, monkey. The top of the skull was removed while the animal was kept insensible by administration of chloroform. The animals, on recovering consciousness, did not indicate suffering; a monkey on one occasion eating bread and butter and catching flies, with his brain entirely exposed.

On applying the electrode of the battery to a portion of the superior external convolution of the cat's brain, the animal lifted its shoulder and paw on the opposite side to that stimulated, as if about to walk forward. Stimulating other parts of the same convolution, it brought the paw suddenly back, or put it out as if to grasp something, or brought forward its hind leg as in walking, or held back its head as if astonished, or turned it on one side as if looking for something,—each according to the particular part stimulated. A similar treatment of the lower external convolution produced certain movements of the angles of the mouth. The animal opened the mouth, wildly moved its tongue, and uttered loud cries or mewed in a lively

way, sometimes starting up and lashing its tail as though in a furious rage. The stimulation of another part of this convolution caused the animal to screw up its nostrils on the same side. It is from this point that the nerves originate which are distributed to the nasal muscles.

Similar results were obtained from the experiments on the other animals. Dr. Ferrier was able to produce epileptic convulsions of all kinds, as well as movements resembling those of St. Vitus's dance. He also produced some expressions of the face, showing their approximate cause. For instance, the tendency to retract the angle of the mouth when strong exertion is made with the right hand was proven to be due to the fact that the points on the brain whence the stimulus is derived for the contractions of the respective muscles are very close together, so that the stimulus easily passes from the one point to the other.

Ideas were also excited by this kind of irritation by galvanic currents; but what they were was not easily ascertained. Stimulation of the corpora striata caused the limbs to be flexed; of the anterior pair of the corpora quadrigemina, an obliquation of the pupil and a tendency to opisthotonos; of the hinder pair, a great variety of noises; of the cerebellum, movements of the eyeballs.

AGASSIZ.

Prof. Agassiz was an opponent of Darwinism, but his opposition gave no excuse for the amount of stupid rant upon the question which has been lately poured forth. The following passage from an elaborate article on Prof. Agassiz, in one of our leading morning papers, is a fair example of a good deal of the talk that has been latterly indulged in by the press: "His views

of the development of the animal species, opposed entirely to the gloomy theory of Darwin, which has fallen so oppressively upon the world, while they neglect no fact and break no link in the chain of progress, are marked by a recognition of a distinct humanity and a high creative purpose in the Divine origin of all things which elevate and cheer and relieve us of the sickening consciousness that man, 'the paragon of animals,' is merely a growth from some shapeless, loathsome jelly."

We have here a moral estimate of "jelly," and a vehement denial of its fitness to be the material from which the "paragon of animals" originates; the bare idea being declared sufficient to shroud the universe in gloom and fairly to make one sick. But perplexing questions here arise. Omnes vivum ex ovo, and the substance of all eggs is jelly; but, if this substance was not fit to use at the primal start of life, why is it so extensively employed now? If not fit for the elaboration of the lowest creatures, how came it to be employed in unfolding the "paragon?" and, if not always used, pray when and why was it introduced? One would think, from the writer's horror of jelly, that he regarded it as a diabolical invention of Darwin; threatening a gelatinous "fall of man," from which Prof. Agassiz has had the happiness of rescuing the world and restoring it to cheerfulness. really Mr. Darwin is responsible for neither the existence nor the office nor the extent of "jelly" in nature; and of all men Prof. A. is the last to lead a crusade against it. As an eminent embryologist, he might properly be called the high-priest of "jelly." He was never weary of explaining that all living things—each man, as well as every inferior animal—is actually evolved from a little mass of "jelly;" and, while he would probably have agreed as to its "shapelessness," he would certainly have protested against its "loathsomeness:" He who said that "our philosophers and our theologians" (and, he might have added, our editors) require to be taught that "a physical fact is as sa. cred as a moral principle," would hardly have sickened over the "loathsomeness" of that plastic material which we know to be the starting-point of all organic development.

Agassiz held that Nature is to be regarded as the material embodiment of divine ideas, and, after dwelling with delight

upon the curious forms and constitutions of creatures composed almost wholly of "jelly" he would say, "These are the thoughts of the Almighty." On his view, "jelly" was the chosen and specially honored material for the expression of the divine conceptions. Prof. Agassiz would certainly have considered the little protoplasmic speck, which, in the course of natural operations, can evolve in a few years into a Newton, a Shakespeare, or even a President of the United States, as an exceedingly interesting portion of the divine order. If the germ contains potentially the future being, and if a highly-developed race transmits its aptitudes and capacities from generation to generation, then is "jelly" an institution of God for the conservation of perfected man and the civilization that he carries with him.

With such evidences as this of the prevailing state of mind, no wonder that the great naturalist was vehement almost to fanaticism in his advocacy of scientific education. In old prescientific times, Nature was held accursed; and that such stuff as we have here quoted could find entrance into a widely-circulated organ of public opinion, is proof to how great an extent we are still dominated by middle-age ideas.—*E. L. Youmans*.

HOW TO TREAT SCARLET FEVER.

"Stamping out" is the new and significant process for the arrest of many diseases, and in none can it be more effectually employed than in scarlet fever. This should, of course, include isolation. All cases should be promptly reported to the health authorities, under heavy penalties for neglect, and all occurring among persons unable to afford seclusion, should be taken care of at public expense in appropriate hospitals, at safe distances from populous neighborhoods. And the rich should be compelled to provide seclusion in isolated rooms for cases occurring among them, or else relinquish the care of them to the health authorities, and be subject to the nescessary costs. All clothes used by the patients should be disinfected or destroyed. Water closets, cesspools, and drains attached to the hospitals and dwellings of the sick, should be thouroughly disinfected.—The Sanitarian.

THE DRY EARTH METHOD OF TREATING EXCRETA.

Dr. Cunningham has proved the existence in cholera excreta of an animalcule termed euglenia, which is developed in countless myriads in putrefying cholera material. The most efficient of all agents in the development and multiplication of euglenia is, undoubtedly, wet or water sewage in hot climates. The real destroyer will be the system of dry sewage. Dry earth, with the aid of vegetation, prevents all further chemical changes of an injurious nature. Our experience in Lower Bengal proves the resultant to be a valuable manure, and the same experience shows that in some jails that were formerly decimated by cholera, the disease is now nearly unknown.—The Sanitarian.

PULTE MEDICAL COLLEGE ITEMS.

THE COMING TERM has already booked a considerable class. The special advantages offered here are being sought for by students from all parts of the country.

THE SPRING COURSE FOR WOMEN fell through. The project was not specially encouraged by the ladies, and the Faculty were sufficiently tired with the duties of the winter course. It is doubtful if it will be attempted again.

Fellows of Pulte College—Graduates who had attended three courses of lectures and were able to pass a special examination before the entire faculty were entitled to the degree of Fellow. Drs. C. B. Gatchell, R. N. Sheldon and C. E. Walton entered the list and, after being "ground" three or four days, were declared competent and worthy. The President, Hon. Mr. Storer, gave them high praise when he delivered them their diplomas.

WHETSTONE GOLD MEDAL PRIZE.—The week following the close of College was devoted to competitive examination for the prize instituted by Mr. and Mrs. John L. Whetstone. After a sharp and prolonged contest, Mr. C. E. Walton was declared the winner. It was, however, no easy task to gain such a desirable distinction. Dr. J. W. Vance, of Lawrenceburg, Ind.; Dr. J. Harpel, and Dr. Jesse Garrettson, of Cincinnati, were the committee who made the award. They had a delicate task to perform, and they are to be commended for the care and discretion they exercised.

College Prizes—At the last commencement of Pulte College the following prizes were distributed:

- To C. B. Gatchell, for best examination in Latin and physical sciences, \$40.
- To C. E. Walton, for best examination in physical sciences and English scholarship, \$30.
- To A. V. Williams, for best examination in clinical medicine and report of College clinics, \$45.
 - To C. E. Walton, for second best examination and report, \$30.
 - To C. H. Strong, for best essay on surgery, \$50.

BANQUET TOASTS.—At the close of Commencement Exercises, the friends of the College were invited to a sumptuous repast, at Rice's Restaurant.

The subjoined toasts followed and everything went merry as a marriage bell

1. Our Queen City—She is destined to maintain her supremacy as the medical metropolis of the West

Response by Prof. S. R. Beckwith.

2. The Science of Medicine—It cannot be empirical so long as it is guided by law.

Response by Prof. Wm. Owens.

- 3. The Graduates of '74—We give them hearty welcome. May they long live to honor their calling and bless the world! Response by Dr. J. J Marvin.
- 4. Science—The investigator and expounder of laws and facts, whether we call them natural or divine.

Response by Prof. G. Saal.

5. The Pulte Medical College—Its establishment, transcending the experimental, has become pre-eminently practical. Its foundations, laid in the broad liberality of its founder, will make it, humanly speaking, eternal.

Response by Prof. M. H. Slosson.

6. The Undergraduates—We bid them God-speed. May they persevere until they obtain the coveted prize, and after that still persevere!

Response by Dr. Tom Brown.

- 7. The Press and the Pulpit—They are the brains and the heart of the world. May they never cease to think and throb for humanity!
- 8. Our Visiting Brethren—They honor us by their presence at our festal board. May their places at our annual feasts not soon be vacant!
 - 9. The Ladies.

Book Aotices

Galvano-Therapeutics.—We are indebted to Messrs. Robert Clarke and Co. for a neat monograph by Dr. Prince, on the above subject; published by Lindsay and Blakiston, Philadelphia. It is a work which justly merits the careful perusal of every practitioner, more especially every surgeon.

The author deserves great eredit for his effort to bring this much neglected subject to the attention of the profession. It is clear, concise and valuable, although fragmentary. We trust he will, at no distant day, favor us with an exhaustive treatise. This work answers admirably the purpose to which it is chiefly devoted, viz: "To the influence of the continuous or galvanic current, as employed in those cases in which the induced or Faradic current has failed to establish satisfactory power."

The North American Journal of Hmæopathy and the United States Medical and Surgical Journal in their last issues are unusually excellent. Our readers should subscribe to one or both of these quarterlies.

The St. Nicholus—the child's journal par excellence, is growing better and better. Scribner and Co. publish it.

Introductory Address, Detroit Hom. College, by J. H. P. Frost, A. M., M. D.

The subject of the address, The Physician of the Future, by a strange coincidence, was identical with that of our own, delivered at the opening of the Pulte Medical College. The fact that our effort took precedence by about two weeks might make the case look suspicious, but a glance at the matter of the address would dispel all thoughts of a possible relation between them. Our view of the physician of the future is radically different from the views put forth by Prof. Frost. His idea seems to be that the future is to be a modification, an amplification, a purification of the present. The physician of the future, he is quite certain, will be a homœopath, possibly a clairvoyant and most likely a New Churchman. If the following is a specimen of the coming doctor, we hope to be spared a sight of him. It is bad enough to know that credulity of this sort is fostered anywhere. On page 15, the Professor says:

"In the astonishing facts of natural somnambulism, and in those of animal magnetism or artificial somnambulism; in the wonderful phenomena of clairvoyance, including both far-sceing and prevision or "second sight," and in the still more recondite experience of those who become subject to ecstacy, or trance, are seen innumerable testimonies to the power of the soul when acting in partial independence of the body. And these exhibitions of the apparent separation of the soul from the body throw more light upon the natural relation of the body to the spirit, and the spirit to the body, than could ever be obtained from the whole science of normal psychology. These irregular and infrequent exhibitions of spirit-power are well calculated to strike terror into the observer's heart—powers of this kind being commonly, but incorrectly, attributed to demoniacal influence. Such, for example was that wonderful display of spirit-force made by an Indian Medicine Man, Black Snake, of whom it is authentically related that, in contest with a rival medicine man, concentrating all his powers, or as the Indians term it, gathering his medicine, he commanded his opponent to die, when the unfortunate conjuror succumbed as to a superior moral force, and his spirit, in the words of the Indian informant, went beyond the Sand Buttes! Of another, it is related by a highly educated and deeply religious Catholic priest, European by birth, and formerly a professor in a Continental University of high repute, that he had himself seen a Kootenai Indian command a mountain sheep to fall dead, and the animal, then leaping among the rocks of the mountain side, fell instantly lifeless. This the priest states he saw with his own eyes, that he ate of the animal afterwards, and that it was unwounded, healthy and perfectly wild. These well authenticated instances I mention, out of multitudes equally astounding that might be adduced, in order to remind you that there are indeed

"More things betwixt the heavens and the earth Than were dreamed of in our philosophy."

Many volumes have been published filled with narratives of this kind,—narratives attested by an ample amount of unimpeachable evidence."

Lest this brief extract should do injustice to the doctor's argument, we desire our readers to carefully read the whole address. We do not view the future under any such light, and our warrant is simply what we draw from history. As we are unlike the past so are we unlike the future. New theories, new practices, new medical schools and new and larger truths must meet the wants of coming ages.

REPORT OF THE HOMŒOPATHIC FREE DISPEN-SARY FOR THE QUARTER ENDING FEB. 1st, 1874.

No. of Patients treated in Med. Depart., 456; in Eye and Ear Depart., 195; total, 651. No. Prescriptions in Med. Depart., 1243; in Eye and Ear Depart., 671; total, 1904; Daily Average of Prescriptions, 22.8. No. of Operations, 20. No. Visits, Med. Depart., 253.

The Dispensary Rooms at the College, S. W. Cor. 7th and Mound sts., are open daily at 2 o'clock A. M. and at 2 and 7 o'clock P. M. The Eye and Ear Rooms are open daily at 2 o'clock P. M.

PERSONAL.

Prof. D. W. Hartshorn has gone to California.

Dr. David Thayer has removed from 58 Beach st. to 94 Boylston st., Boston.

Dr. Elmira Y. Howard has returned from Europe and resumed practice in this city.

Dr. C. D. Crank has located in Cincinnati, forming a co-partnership with Prof. J. D. Buck.

Dr. Frank L. Vincent has changed his office from 38 First st. to No. 17 Second st., Troy, N. Y.

IN MEMORIAM.

David James, M. D., of Philadelphia, died June 6th, 1873. We are in receipt of a beautiful testimonial by the Homœopathic Medical Society of Philadelphia. In the ripeness of years and the fullness of a religious faith, "death was to him but the commencement of life."

MRS. HELEN RUSH, the estimable wife of Dr. R. B. Rush, of Salem, O., fell asleep March 1st, 1874, in the 49th year of her age.

"Death hath made no breach

In love and sympathy, in hope and trust;
No outward sigh or sound our ears can reach,
But there's an inward spiritual speech
That greets us still, though mortal tongues be dust."





